

# RECLAMATION

*Managing Water in the West*

## RIO GRANDE PROJECT

El Paso Field Division  
10737 Gateway Blvd. West, Suite 350  
El Paso, TX 79935



U. S Dept. of the Interior  
Bureau of Reclamation

**BUREAU OF RECLAMATION**  
**Elephant Butte & El Paso Field Divisions**

**RIO GRANDE PROJECT**  
**ANNUAL OPERATING PLAN**  
**PUBLIC MEETING**

Wednesday, May 14, 2008  
6:00 PM – 8:00 PM

Dorris Van Doren Public Library  
551 Redd Rd.  
El Paso, TX

**AGENDA**

1. Introductions
2. 2008 Upper Rio Grande Basin Snowpack Conditions and Spring Runoff Forecasts
3. 2008 Upper Rio Grande Basin Water Operations  
Operations of Heron, El Vado, Abiquiu, and Cochiti Reservoirs
4. 2008 Elephant Butte & Caballo Reservoirs Operational Plan, Projected Reservoirs Levels, and Water Supply
5. 2008 Rio Grande Project Water Supply Allocation to Project Water Users and Tentative Irrigation Release Schedule
6. Discussion, Questions, and Answers
7. Conclusion

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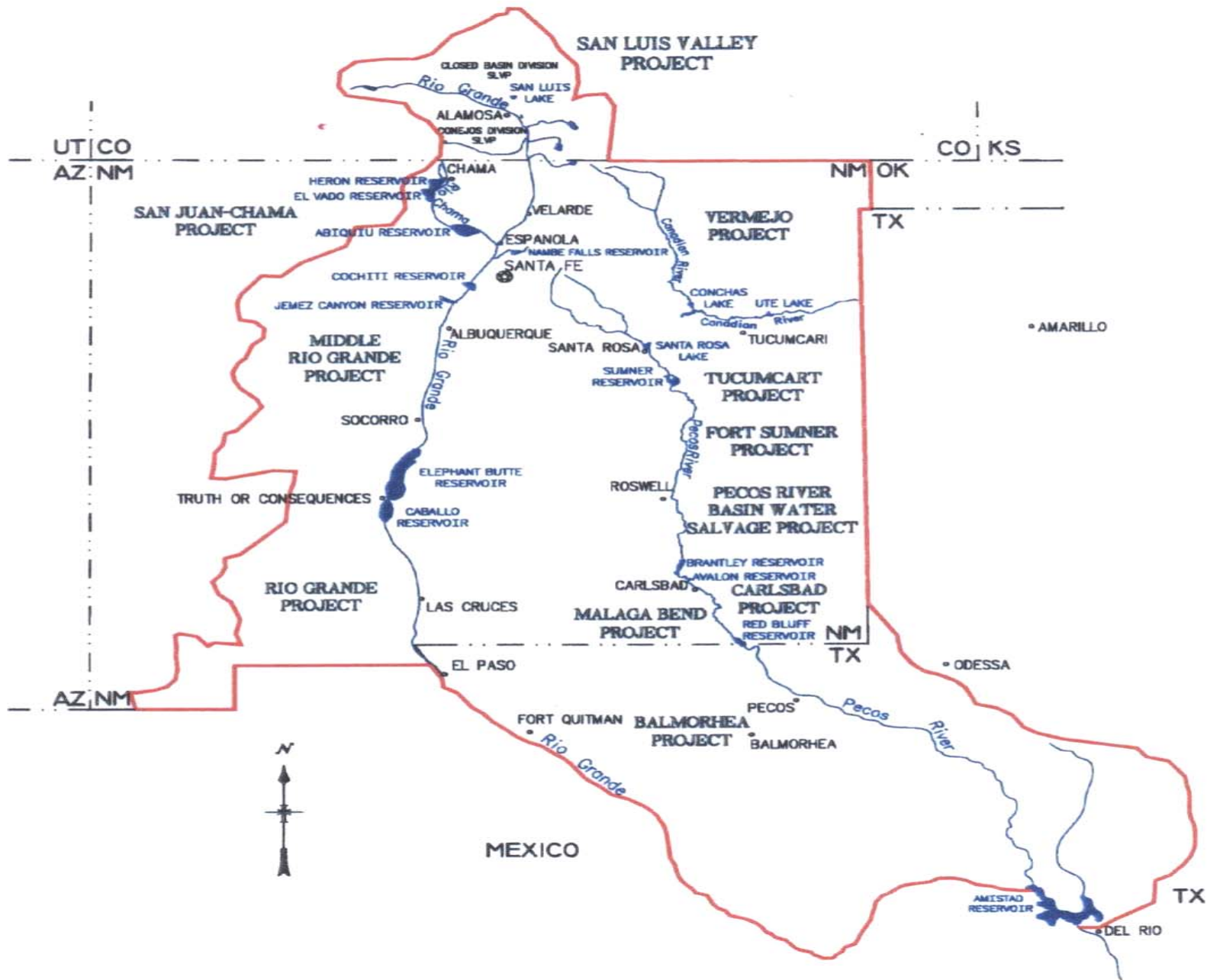
## RIO GRANDE PROJECT

### CURRENT HYDROLOGIC CONDITIONS OF UPPER RIO GRANDE BASIN

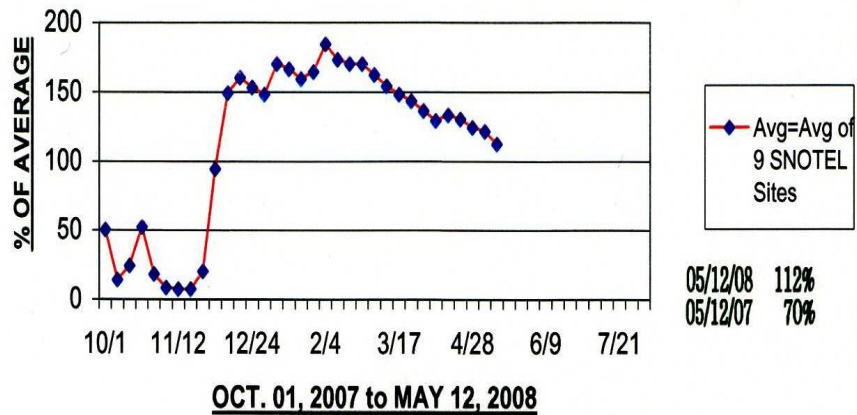


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Bureau of Reclamation

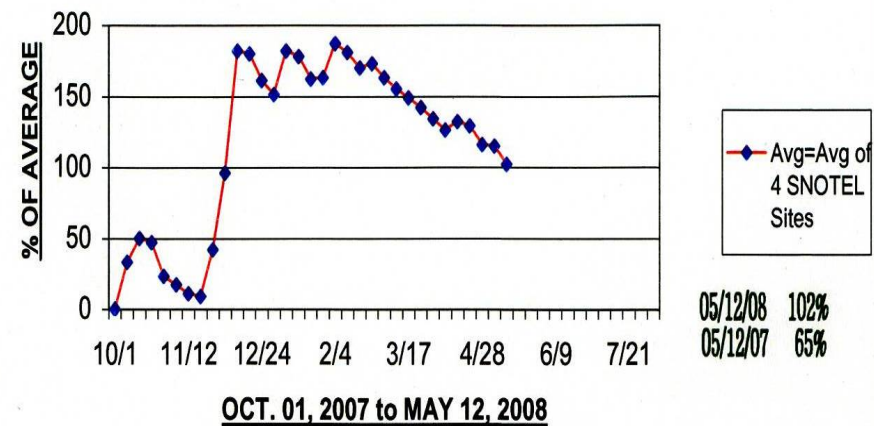
ALBUQUERQUE AREA OFFICE  
BUREAU OF RECLAMATION



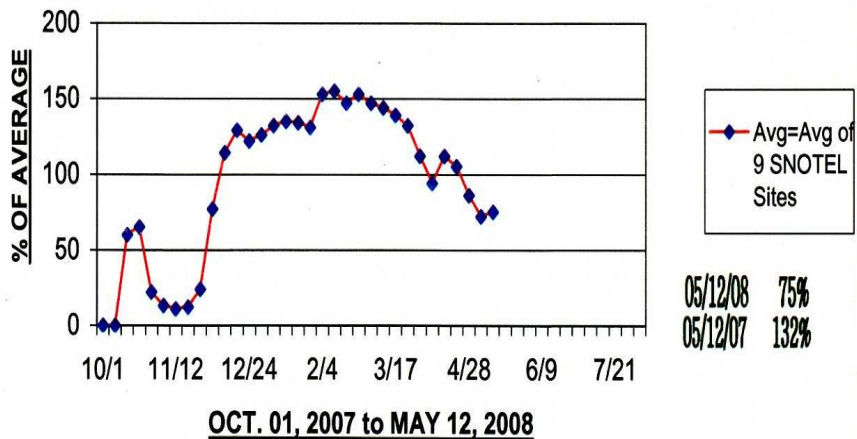
### % OF AVG. SNOW WATER EQUIVALENT vs TIME Upper Rio Grande Basin (Basin Avg.)



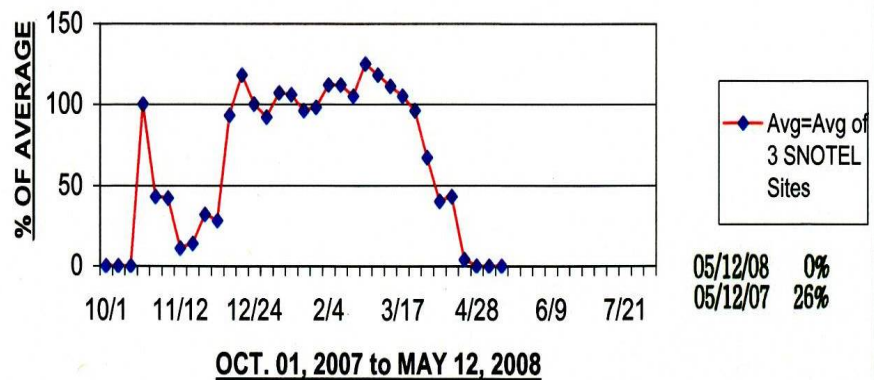
### % OF AVG. SNOW WATER EQUIVALENT vs TIME Rio Chama Basin (Basin Avg.)



### % OF AVG. SNOW WATER EQUIVALENT vs TIME Sangre de Cristo Mtn Basins (Basin Avg.)



### % OF AVG. SNOW WATER EQUIVALENT vs TIME Jemez River Basin (Basin Avg.)







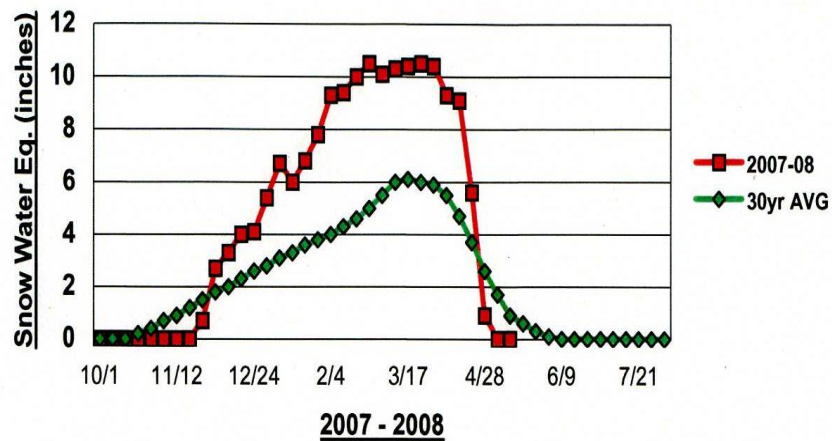






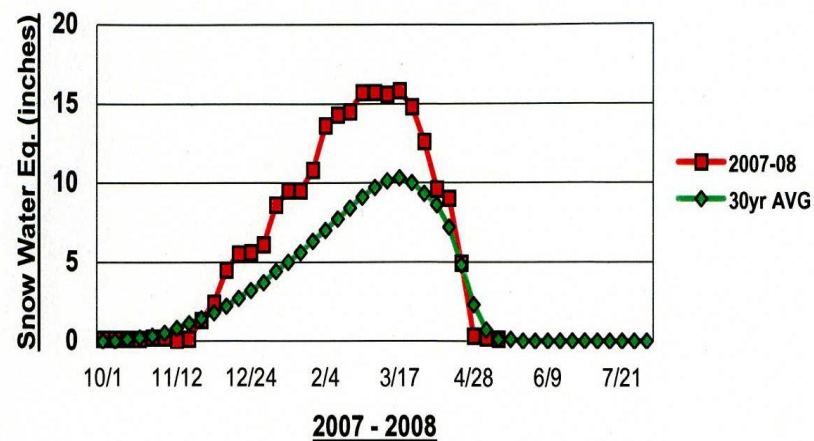
### UPPER RIO GRANDE SNOTEL

Elevation: 9,400 FT



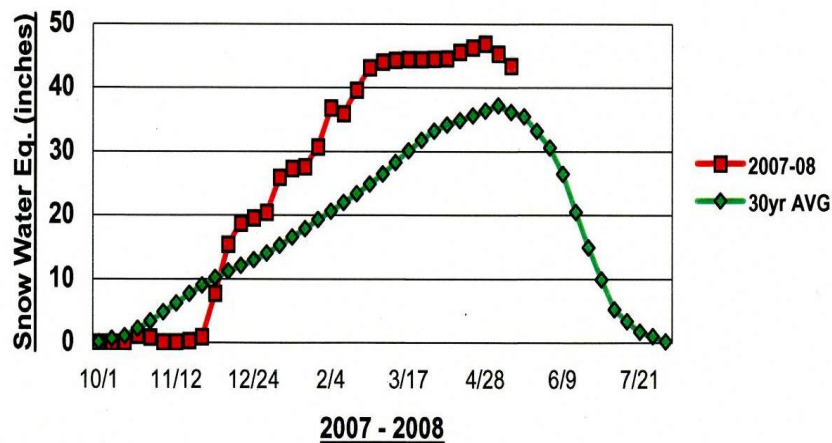
### CHAMITA SNOTEL

Elevation: 8,400 FT



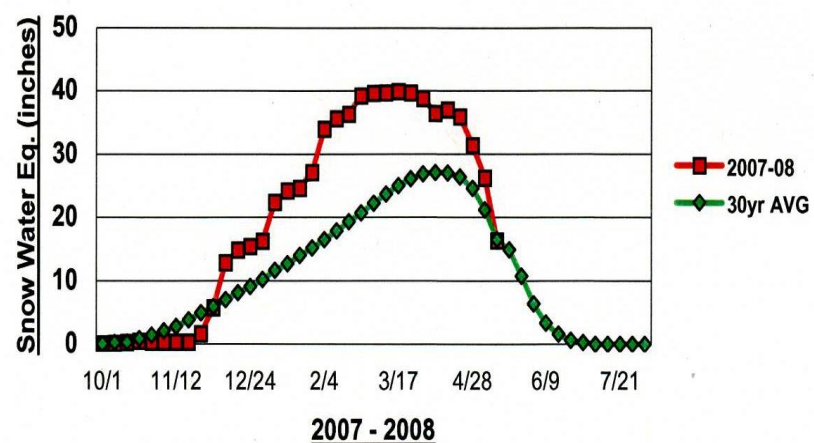
### WOLF CREEK SUMMIT SNOTEL

Elevation: 11,000 FT



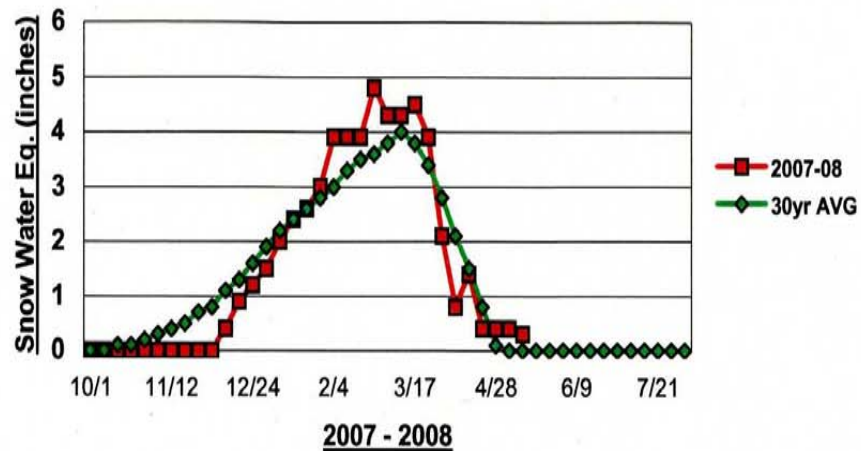
### CUMBRES TRESTLE SNOTEL

Elevation: 10,040 FT



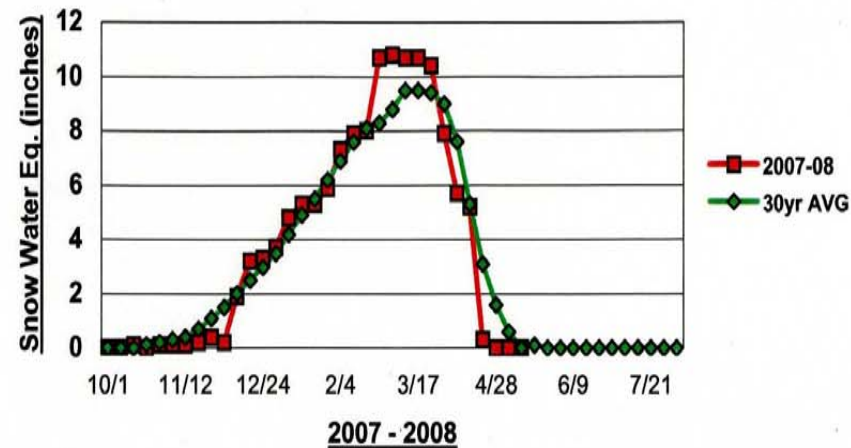
### ELK CABIN SNOTEL

Elevation: 8,210 FT



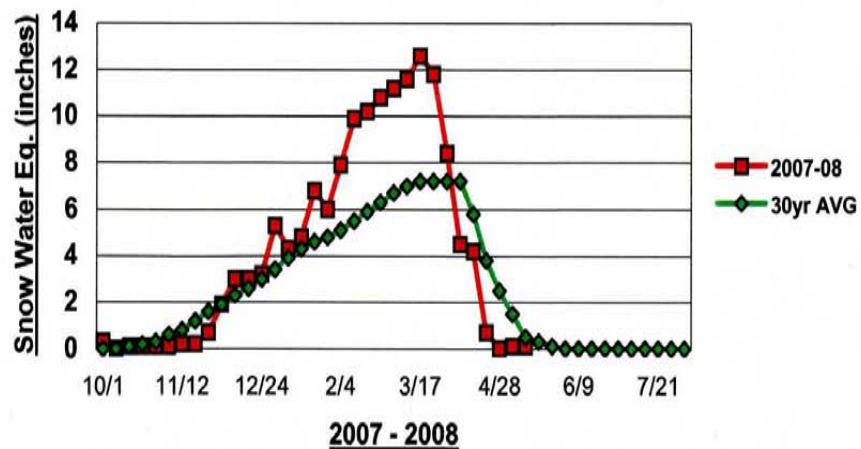
### SENORITA DIVIDE #2 SNOTEL

Elevation: 8,600 FT



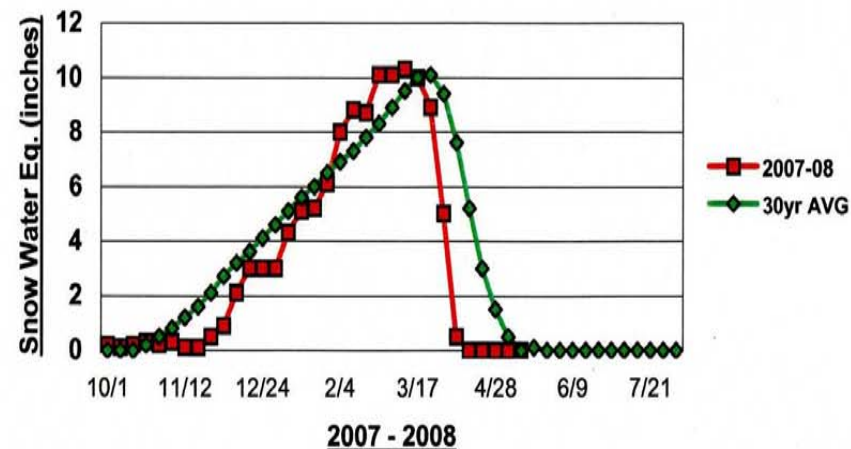
### RED RIVER PASS #2 SNOTEL

Elevation: 9,850 FT



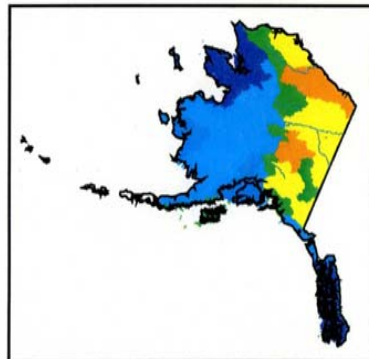
### QUEMAZON SNOTEL

Elevation: 9,500 FT



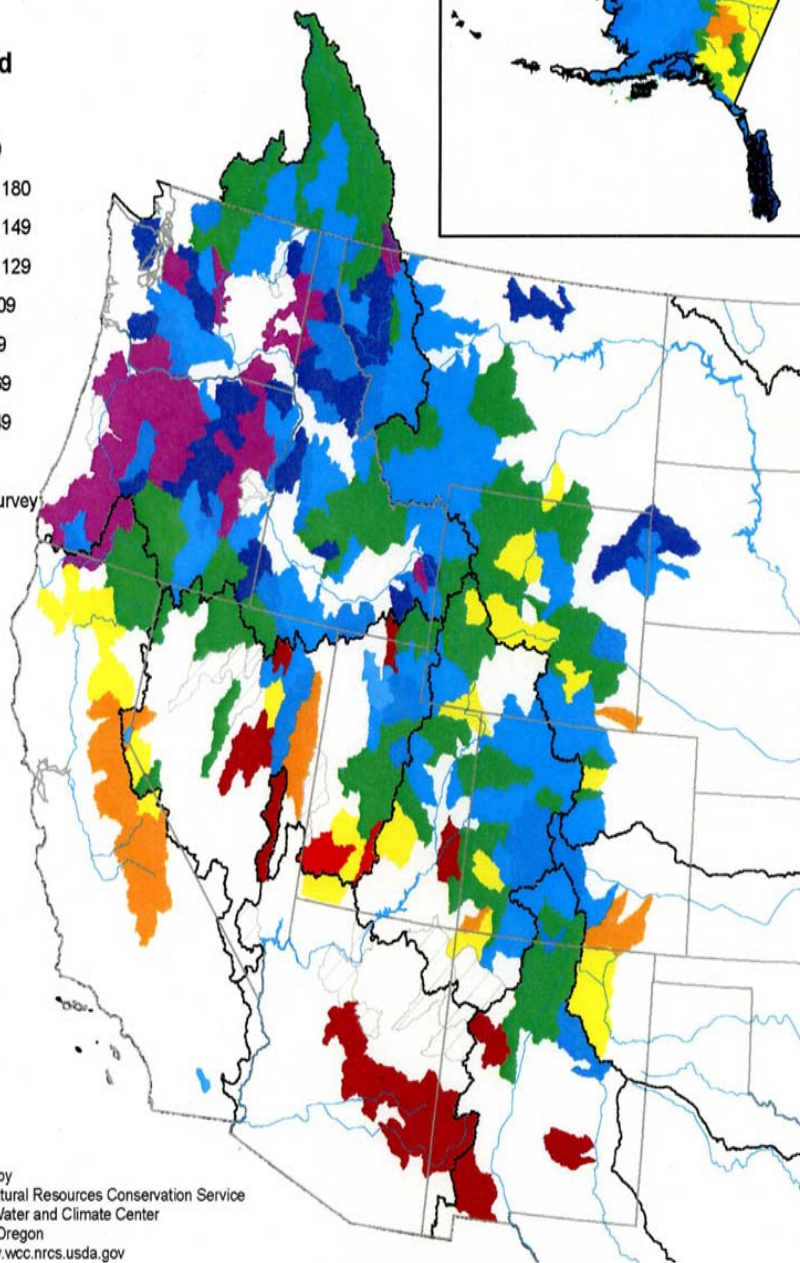


# Mountain Snowpack as of May 1, 2008



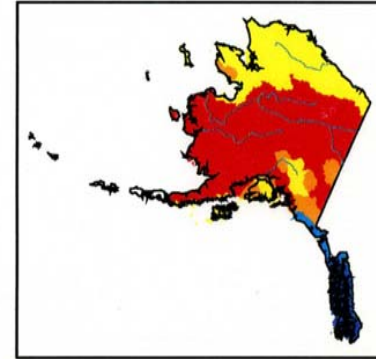
## Legend

percent



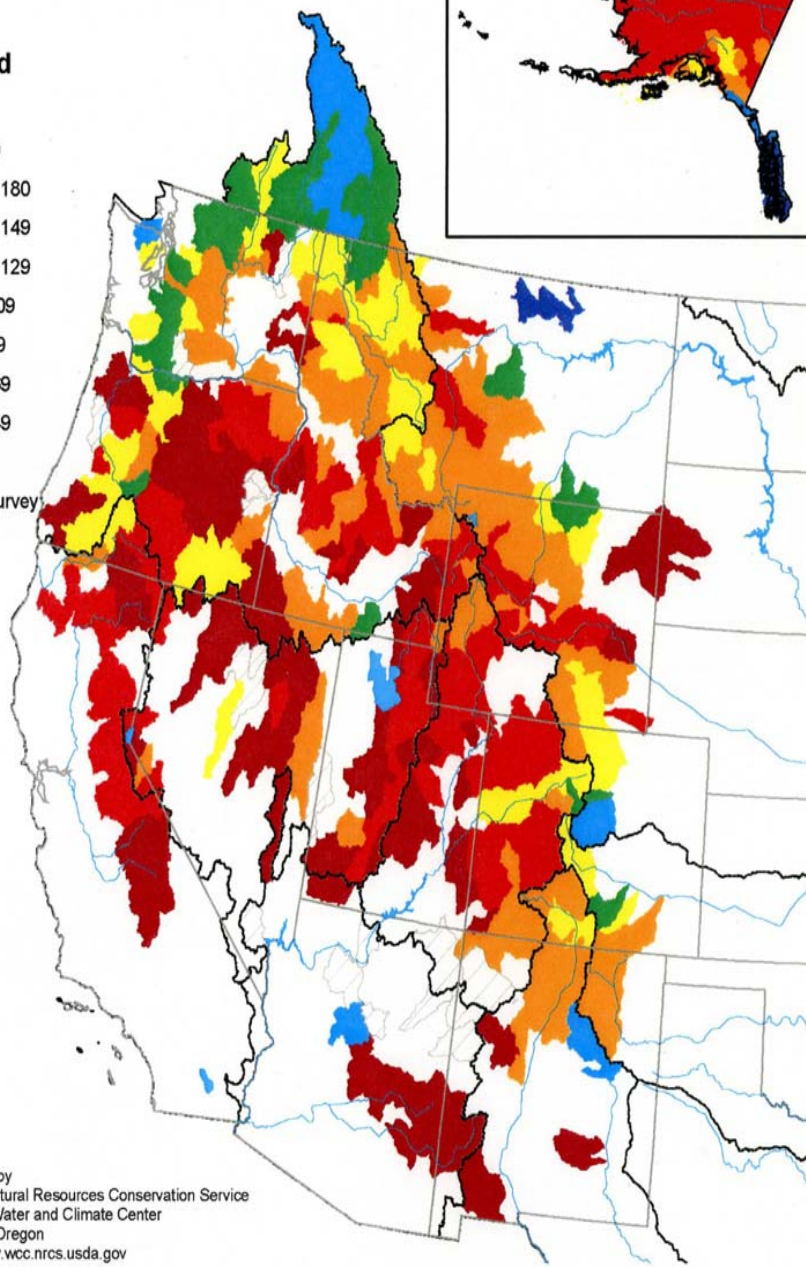
Prepared by  
USDA, Natural Resources Conservation Service  
National Water and Climate Center  
Portland, Oregon  
<http://www.wcc.nrcs.usda.gov>

# Mountain Snowpack as of May 1, 2007



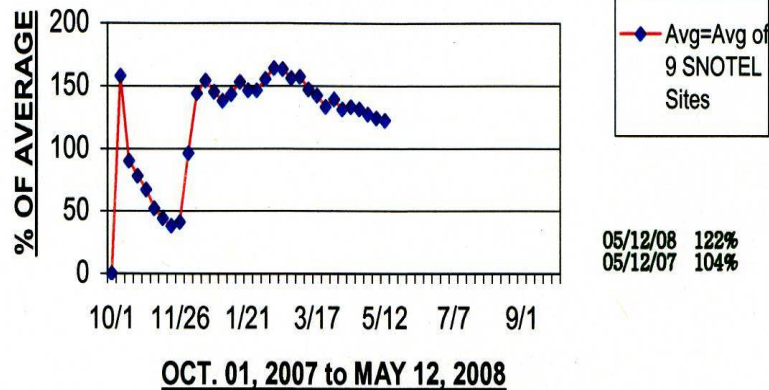
## Legend

percent

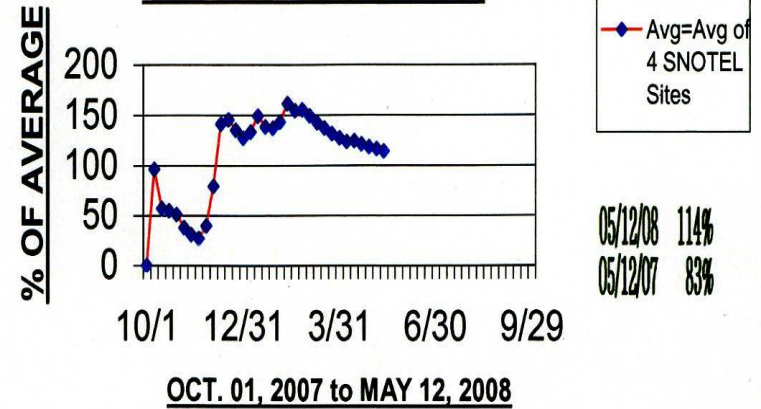


Prepared by  
USDA, Natural Resources Conservation Service  
National Water and Climate Center  
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<http://www.wcc.nrcs.usda.gov>

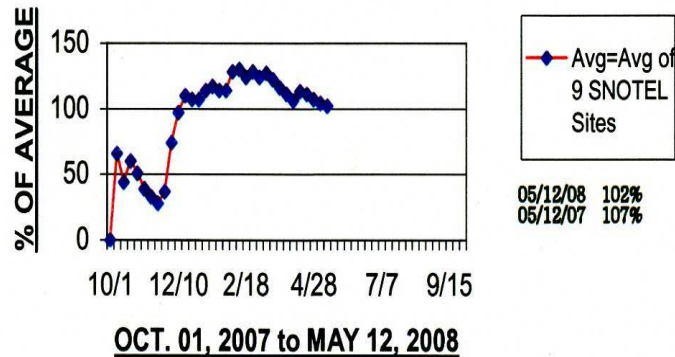
# **% OF TOTAL PRECIPITATION vs TIME** **Upper Rio Grande Basin (Basin Avg.)**



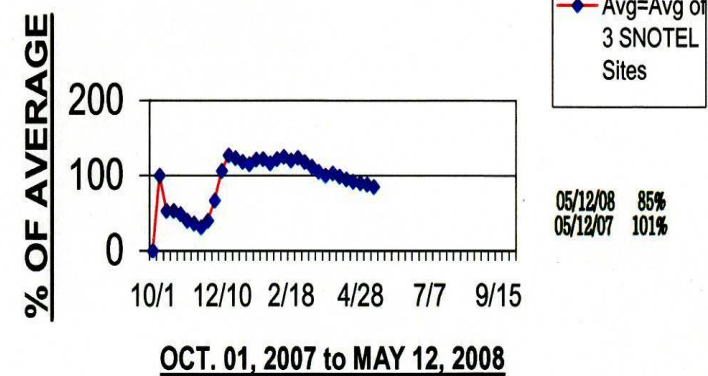
# **% OF AVG. TOTAL PRECIPITATION vs TIME** **Rio Chama Basin (Basin Avg.)**



# **% OF AVG. TOTAL PRECIPITATION vs TIME** **Sangre de Cristo Mtn Basins (Basin Avg.)**



# **% OF AVG. TOTAL PRECIPITATION vs TIME** **Jemez River Basin (Basin Avg.)**





# SPRING RUNOFF FORECASTS

2008

## RIO GRANDE BASIN

(ACRE-FEET)

FORECAST POINT	Rio Grande nr Del Norte	Rio Chama at El Vado Reservoir	Rio Grande at Otowi Bridge	Jemez River at Jemez Canyon Reservoir	Rio Grande at San Marcial
FORECAST PERIOD	APR-SEP	MAR-JUL	MAR-JUL	MAR-JUL	MAR-JUL
30-YEAR AVERAGE RUNOFF *	531,000	237,000	757,000	45,000	573,000
JANUARY 1 FORECAST	690,000 130%	295,000 124%	940,000 124%	36,000 80%	750,000 131%
FEBRUARY 1 FORECAST	790,000 149%	390,000 165%	1,300,000 172%	50,000 111%	1,050,000 183%
MARCH 1 FORECAST	850,000 160%	400,000 169%	1,380,000 182%	52,000 116%	1,150,000 201%
APRIL 1 FORECAST	745,000 140%	375,000 158%	1,170,000 155%	41,000 91%	980,000 171%
MAY 1 FORECAST **	680,000 128%	330,000 139%	1,040,000 137%	36,000 80%	695,000 121%
<b>MAY 1, 2007</b>	<b>385,000 73%</b>	<b>149,000 63%</b>	<b>450,000 59%</b>	<b>29,000 64%</b>	<b>255,000 45%</b>

\* based on 1971-2000 runoff data.

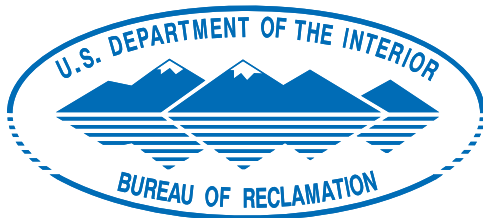
\*\* last official forecast for 2008 spring runoff.

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## RIO GRANDE PROJECT

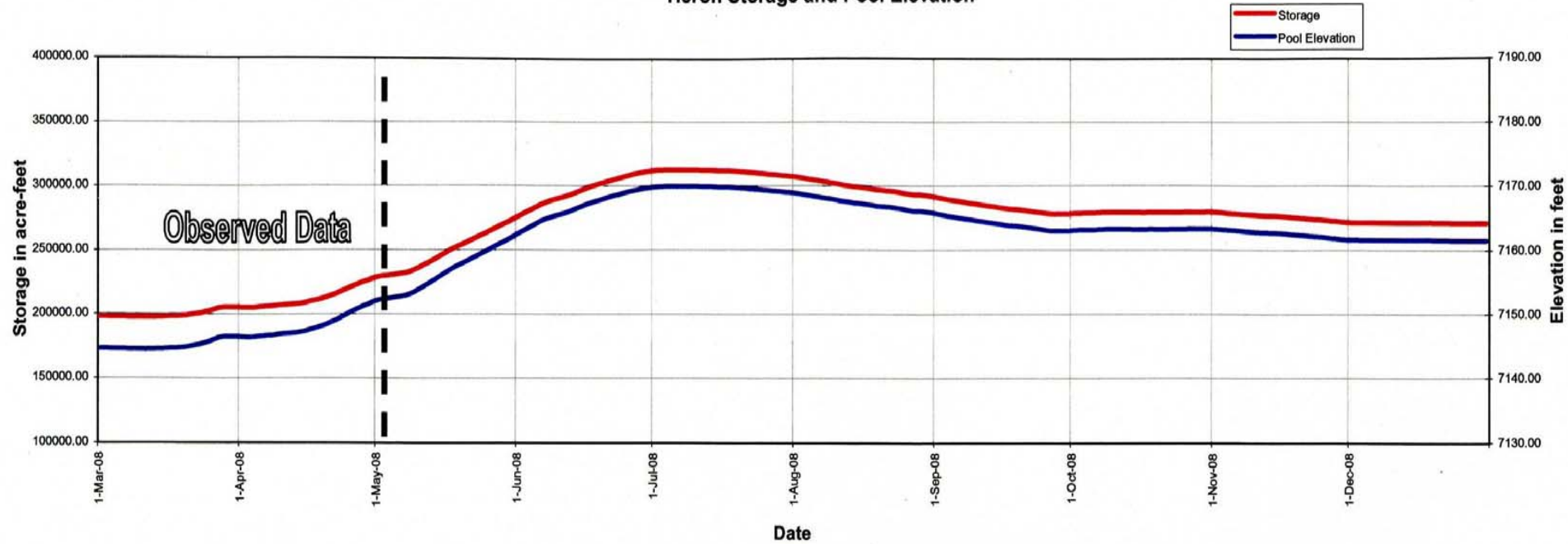
### 2008 UPPER RIO GRANDE BASIN RESERVOIRS OPERATIONS



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2008

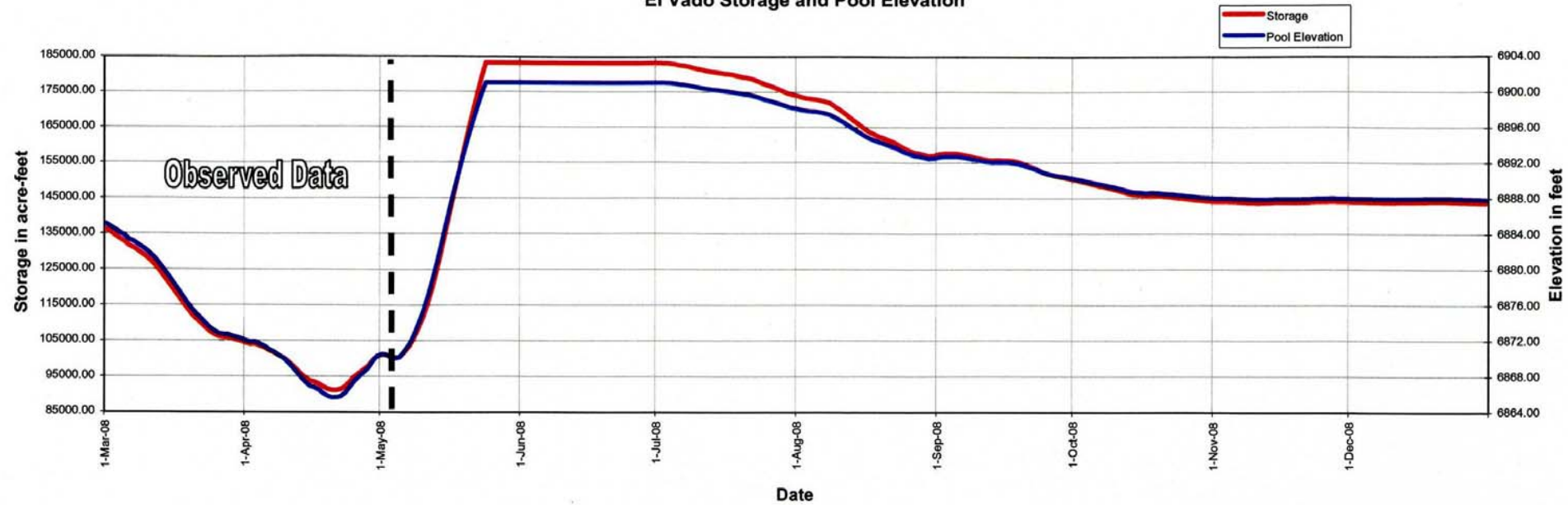
### Heron Storage and Pool Elevation



Date

2008

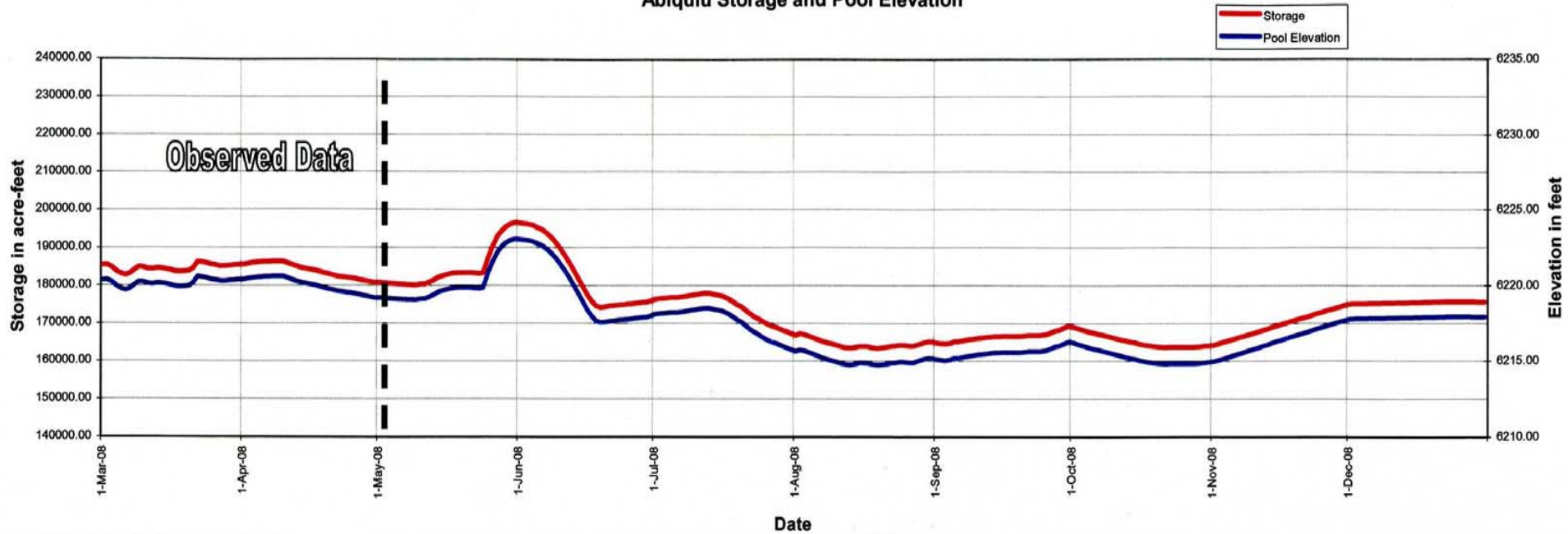
### El Vado Storage and Pool Elevation



Date

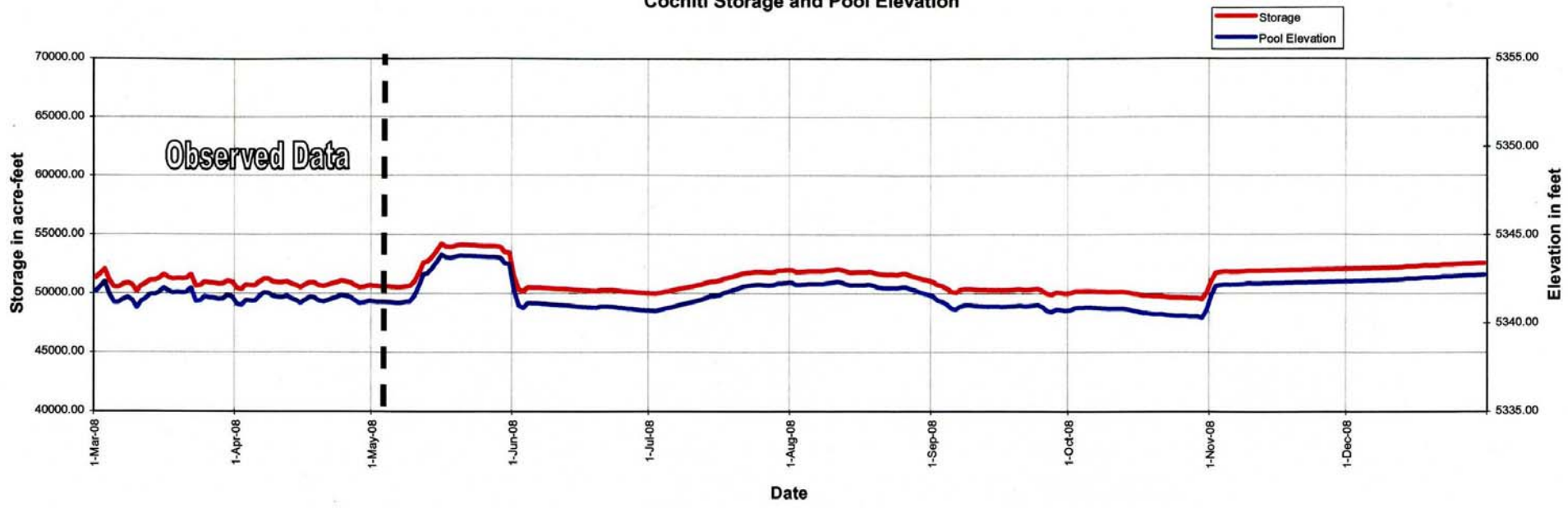
2008

Abiquiu Storage and Pool Elevation



2008

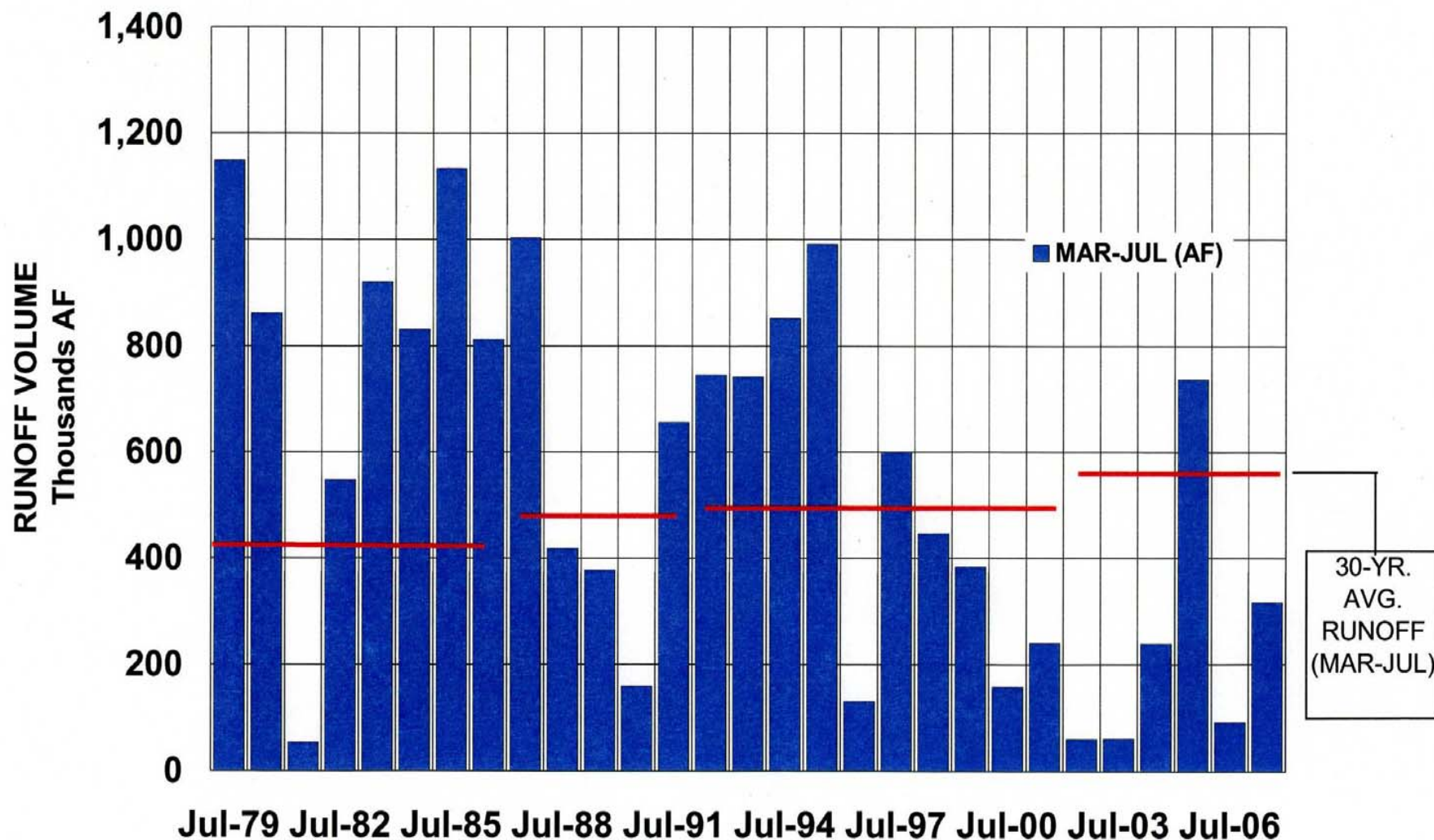
Cochiti Storage and Pool Elevation



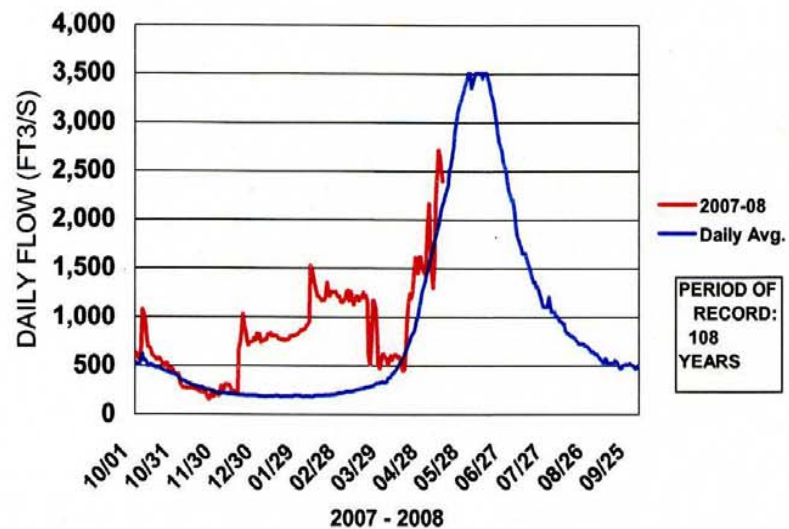


# HISTORICAL RUNOFF - SAN MARCIAL

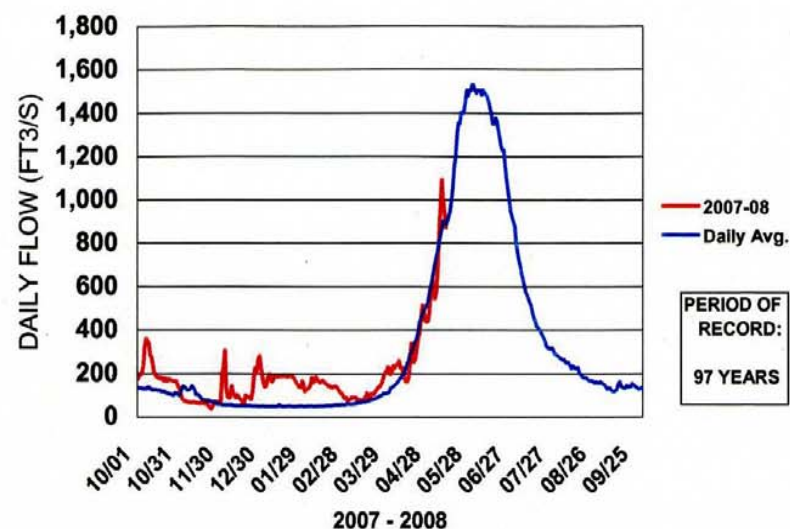
## 1979 - 2007



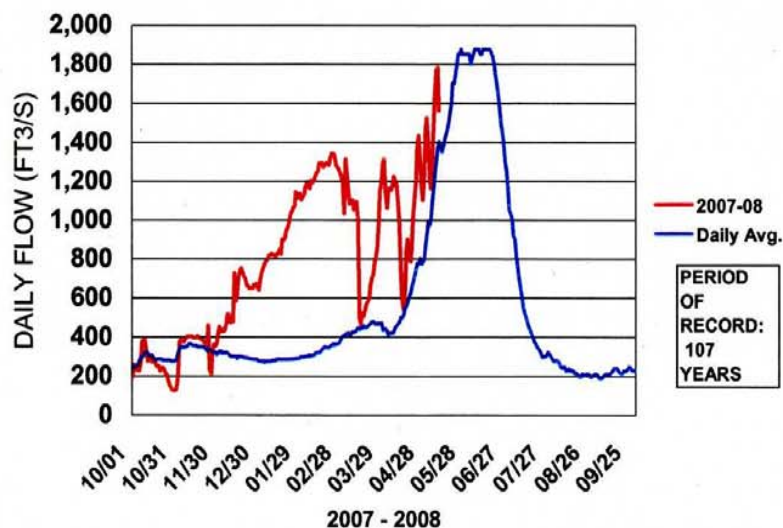
# RIO GRANDE NEAR DEL NORTE, CO



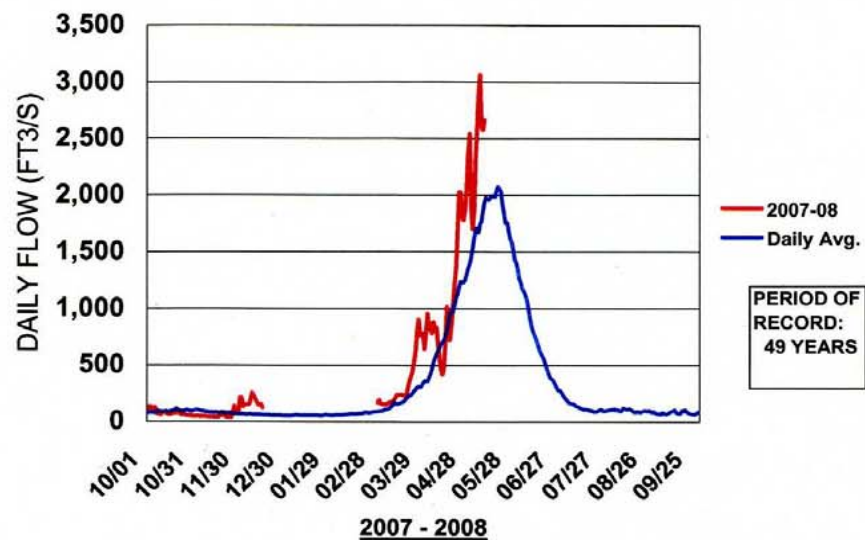
# CONEJOS RIVER NEAR MOGOTE, CO



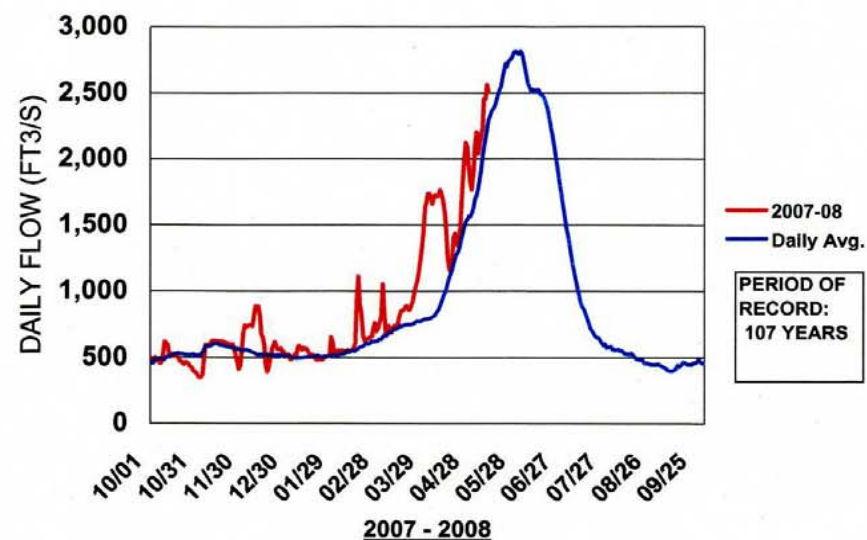
# RIO GRANDE NEAR LOBATOS, CO



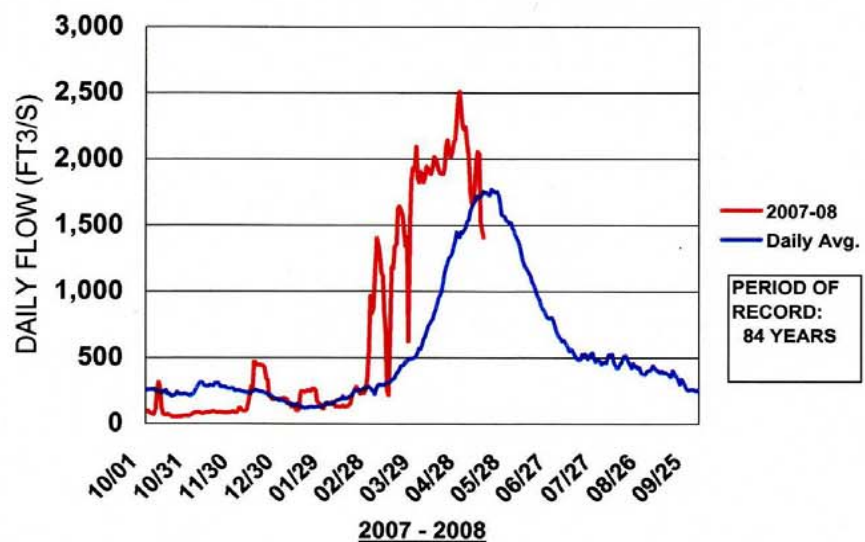
# RIO CHAMA NEAR LA PUENTE, NM



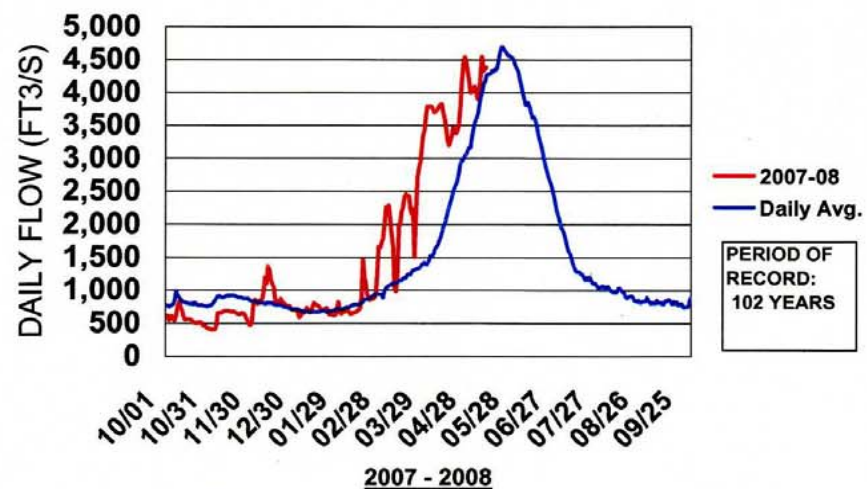
# RIO GRANDE AT EMBUDO, NM



# RIO CHAMA NEAR CHAMITA, NM

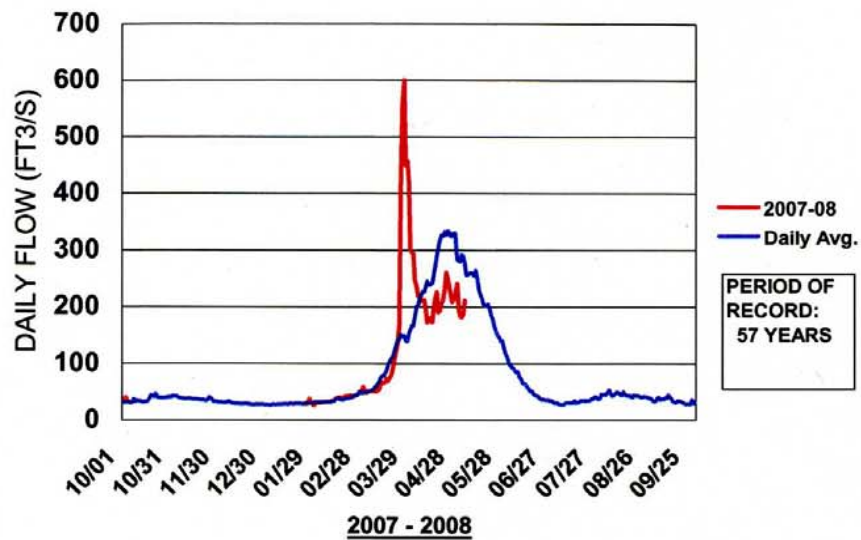


# RIO GRANDE AT OTOWI BRIDGE, NM

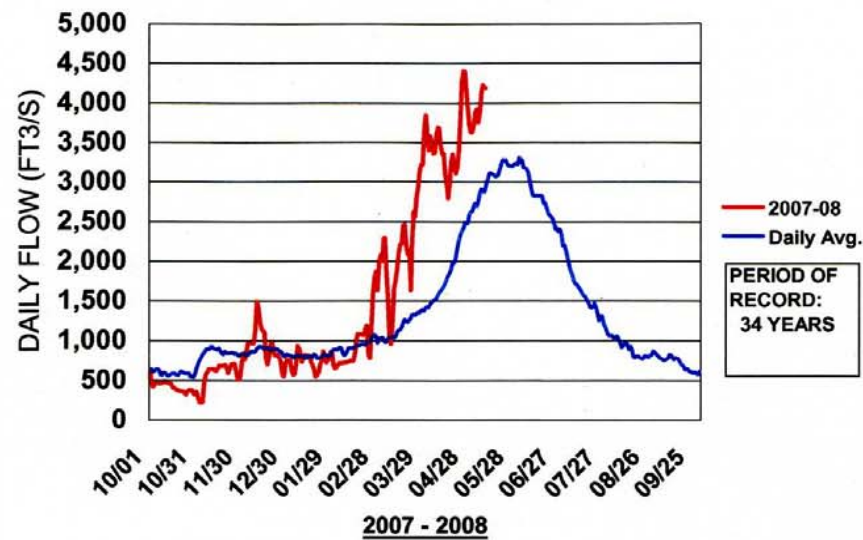




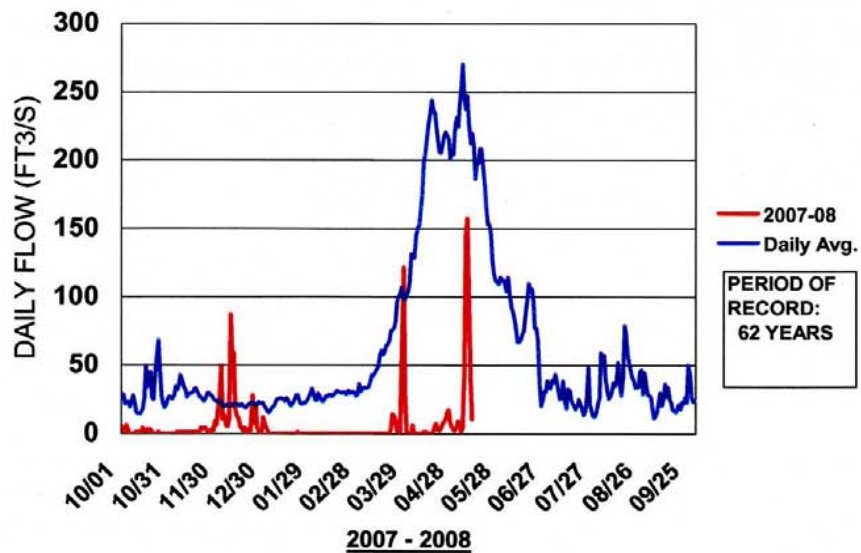
### JEMEZ RIVER NEAR JEMEZ, NM



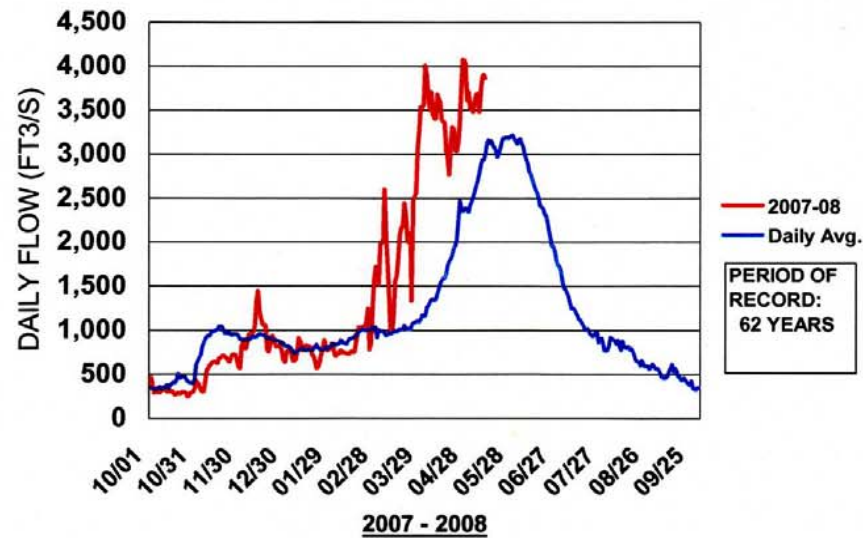
### RIO GRANDE BLW COCHITI DAM, NM



### JEMEZ RIVER BELOW JEMEZ CANYON DAM, NM

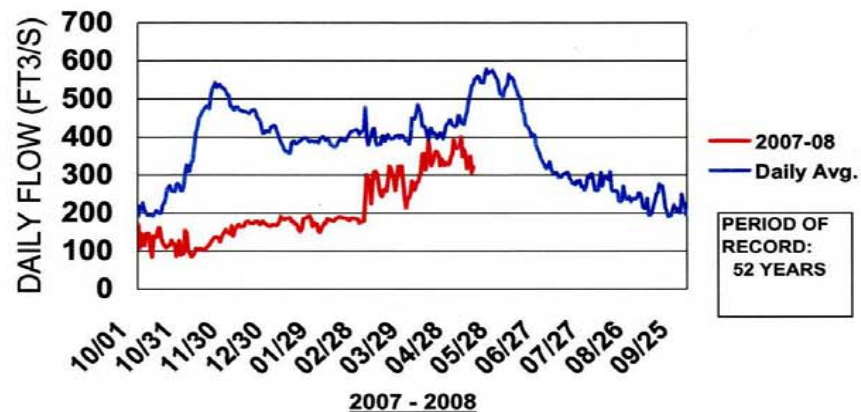


### RIO GRANDE AT ALBUQUERQUE, NM

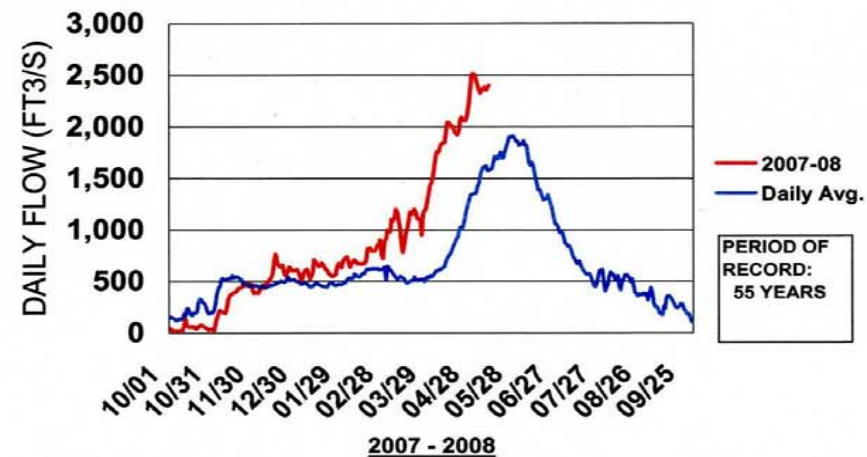




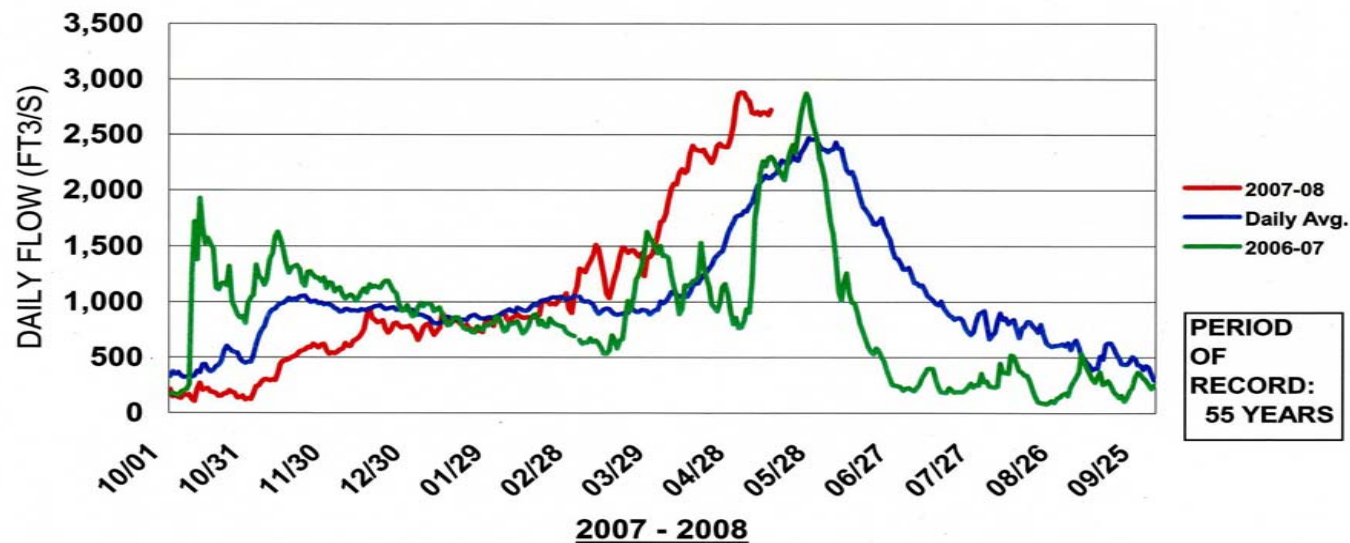
# **RIO GRANDE AT SAN MARCIAL,NM LOW FLOW CONVEYANCE CHANNEL**



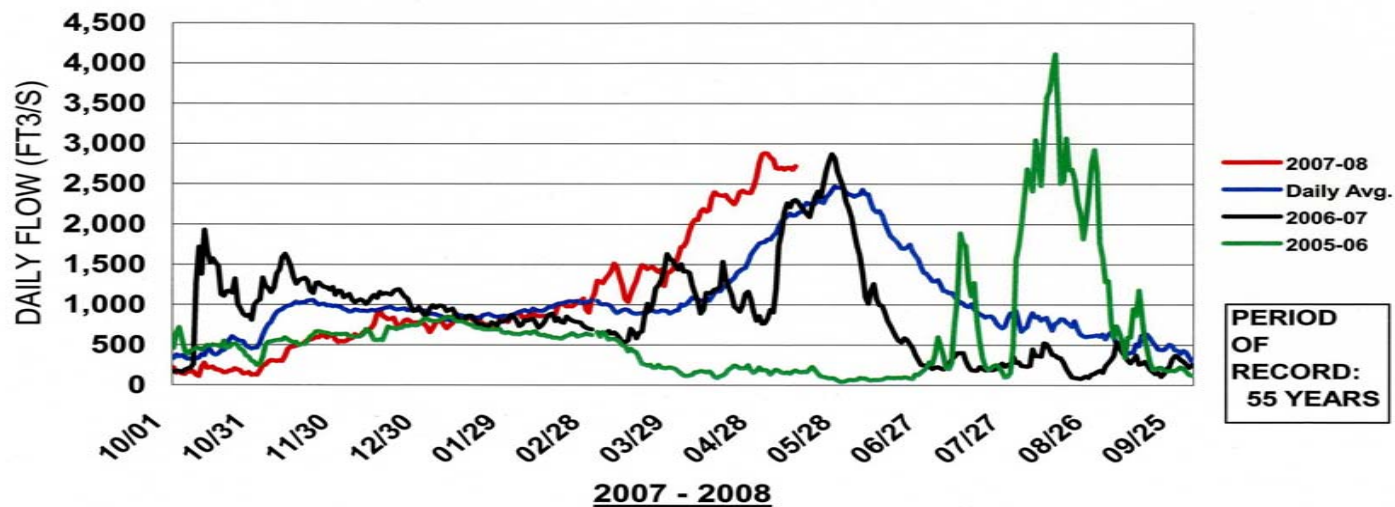
# **RIO GRANDE AT SAN MARCIAL,NM FLOODWAY**



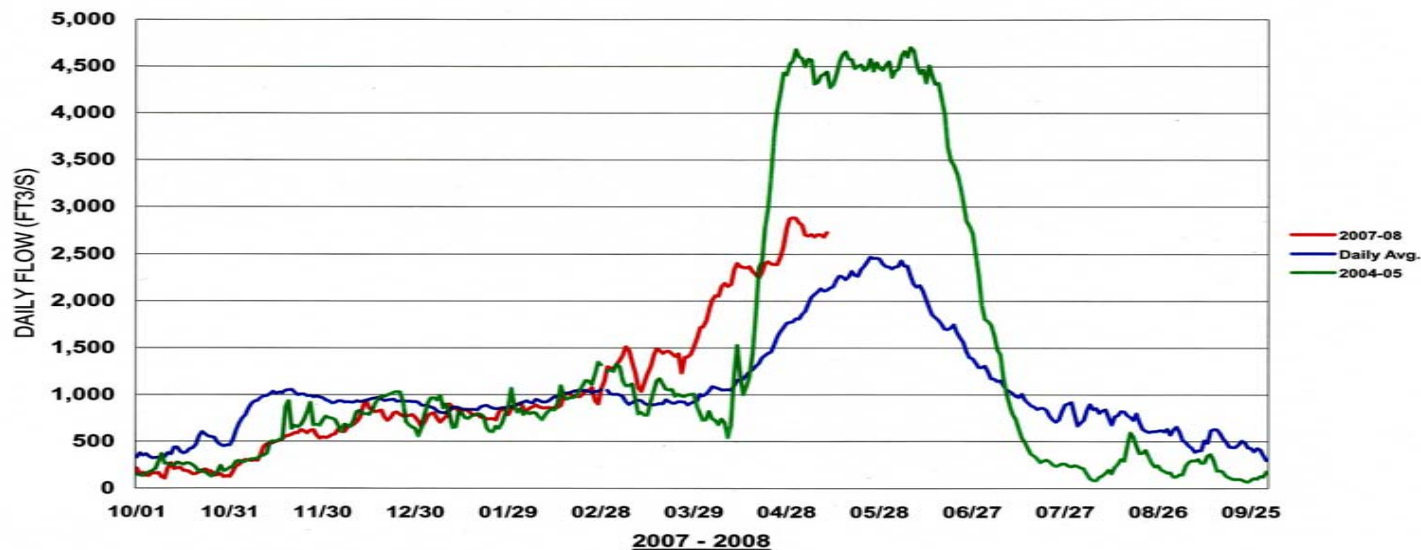
# **RIO GRANDE AT SAN MARCIAL, NM COMBINED GAUGING STATIONS**



# **RIO GRANDE AT SAN MARCIAL, NM COMBINED GAUGING STATIONS**



# **RIO GRANDE AT SAN MARCIAL, NM COMBINED GAUGING STATIONS**



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## RIO GRANDE PROJECT

### INFLOW TO ELEPHANT BUTTE RESERVOIR AT SAN MARCIAL STATIONS

	2007			2008				
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	Total
	10,217	27,189	44,941	46,897	48,428	84,367	136,873	398,912
Avg.	30,000	59,000	60,000	47,000	48,000	60,000	120,000	424,000

Mar.-Jul. 2007 = 55.3% of average(316,976 AF)

Oct. 2007 – Feb. 2008 = 72.8% of average

Projected Mar. 2008 – Jul. 2008 = 132.0% of average

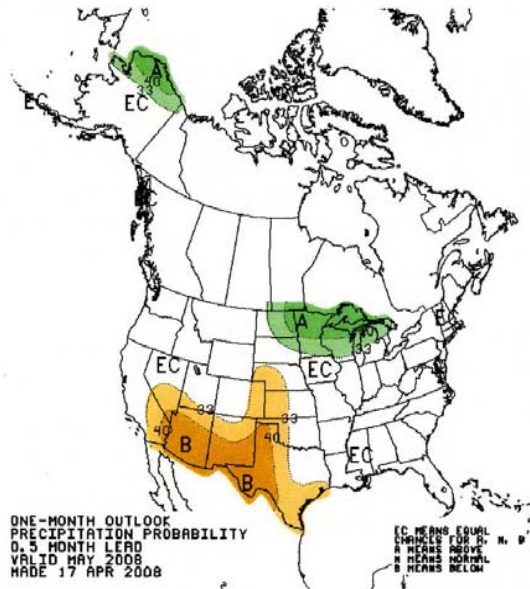


2008

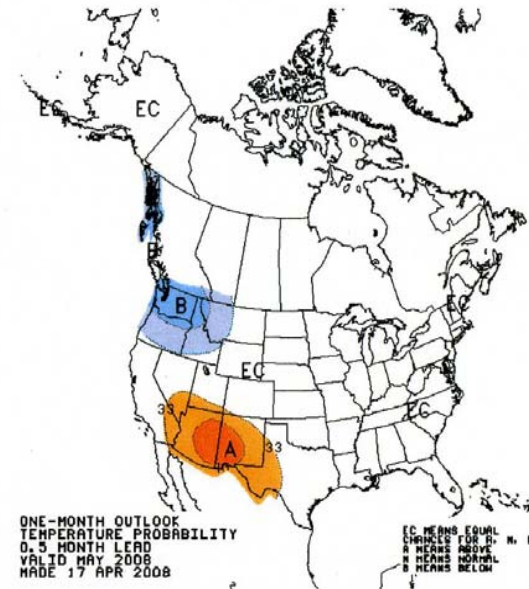
Precipitation

Temperature

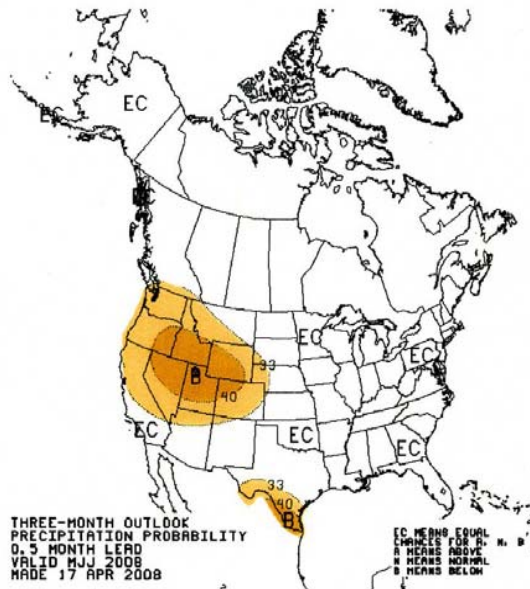
May08



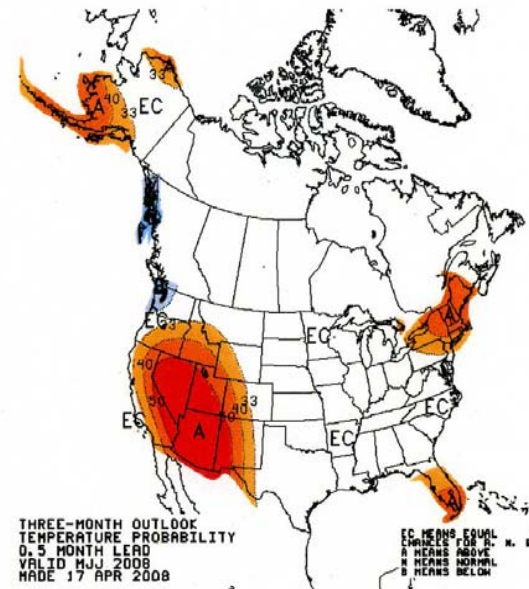
May08



May08-  
Jul08



May08-  
Jul08



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## RIO GRANDE PROJECT

### CURRENT RESERVOIR CONDITIONS



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BUREAU OF RECLAMATION  
RIO GRANDE PROJECT  
EL PASO, TX

**2008 OPERATIONAL DATA STATUS**

<b>ELEPHANT BUTTE RESERVOIR</b>			RESERVOIR WATER SURFACE ELEVATION (feet)	FEET BELOW SPILLWAY CREST (feet)	RESERVOIR TOTAL STORAGE (acre-feet)	PERCENT OF FULL RESERVOIR (%)	RESERVOIR WATER SURFACE AREA (acres)	PERCENT OF FULL RESERVOIR SURFACE AREA (%)
<b>TODAY'S DATE:</b>	<b>Wednesday, May 14, 2008</b>		<b>4344.60</b>	<b>62.40</b>	<b>566,443</b>	<b>28.70%</b>	<b>13,846</b>	<b>39.34%</b>
<b>2007 HIGH POINT:</b>	<b>Monday,</b>	<b>March 26, 2007</b>	<b>4347.76</b>	<b>59.24</b>	<b>611,063</b>	<b>30.58%</b>	<b>14,395</b>	<b>40.45%</b>
<b>2007 LOW POINT:</b>	<b>Wednesday,</b>	<b>October 24, 2007</b>	<b>4324.40</b>	<b>82.60</b>	<b>323,488</b>	<b>16.19%</b>	<b>10,270</b>	<b>28.85%</b>
Gates Closed Oct. 25, 2007								
<b>2006 LOW POINT:</b>	<b>Friday,</b>	<b>July 28, 2006</b>	<b>4308.50</b>	<b>98.50</b>	<b>183,875</b>	<b>9.32%</b>	<b>7,228</b>	<b>20.54%</b>
<b>2005 LOW POINT:</b>	<b>Saturday,</b>	<b>January 01, 2005</b>	<b>4309.94</b>	<b>97.06</b>	<b>194,426</b>	<b>9.73%</b>	<b>7,426</b>	<b>20.86%</b>
<b>2004 LOW POINT:</b>	<b>Friday,</b>	<b>September 24, 2004</b>	<b>4294.04</b>	<b>*</b>	<b>94,615</b>	<b>4.79%</b>	<b>4,935</b>	<b>14.02%</b>

\* We haven't been this low at Elephant Butte Reservoir since November 1978.

<b>CABALLO RESERVOIR</b>			RESERVOIR WATER SURFACE ELEVATION (feet)	FEET BELOW SPILLWAY CREST (feet)	RESERVOIR TOTAL STORAGE (acre-feet)	PERCENT OF FULL RESERVOIR (%)	RESERVOIR WATER SURFACE AREA (acres)	PERCENT OF FULL RESERVOIR SURFACE AREA (%)
<b>TODAY'S DATE:</b>	<b>Wednesday, May 14, 2008</b>		<b>4146.02</b>	<b>26.42</b>	<b>** 49,625</b>	<b>21.89%</b>	<b>3,962</b>	<b>42.37%</b>
<b>2007 HIGH POINT:</b>	<b>Wednesday,</b>	<b>May 23, 2007</b>	<b>4151.88</b>	<b>20.56</b>	<b>** 76,662</b>	<b>33.82%</b>	<b>5,243</b>	<b>56.07%</b>
<b>2007 LOW POINT:</b>	<b>Tuesday,</b>	<b>October 16, 2007</b>	<b>4132.72</b>	<b>39.72</b>	<b>** 13,287</b>	<b>5.86%</b>	<b>1,814</b>	<b>19.39%</b>
Gates Closed Oct. 26, 2007.								
<b>2006 FALL LOW PT.:</b>	<b>Sunday,</b>	<b>October 08, 2006</b>	<b>4141.98</b>	<b>30.46</b>	<b>** 35,351</b>	<b>15.60%</b>	<b>3,121</b>	<b>33.37%</b>
Gates Closed Oct. 10, 2006.								
<b>2005 LOW POINT:</b>	<b>Thursday,</b>	<b>October 13, 2005</b>	<b>4131.26</b>	<b>41.18</b>	<b>** 10,744</b>	<b>4.74%</b>	<b>1,670</b>	<b>17.86%</b>
Gates Closed Oct. 14, 2005.								
<b>2004 GATES CLOSED:</b>	<b>Tuesday,</b>	<b>September 28, 2004</b>	<b>4134.10</b>	<b>38.34</b>	<b>** 15,883</b>	<b>7.01%</b>	<b>1,949</b>	<b>20.84%</b>

\*\* Feet below top of conservation pool.



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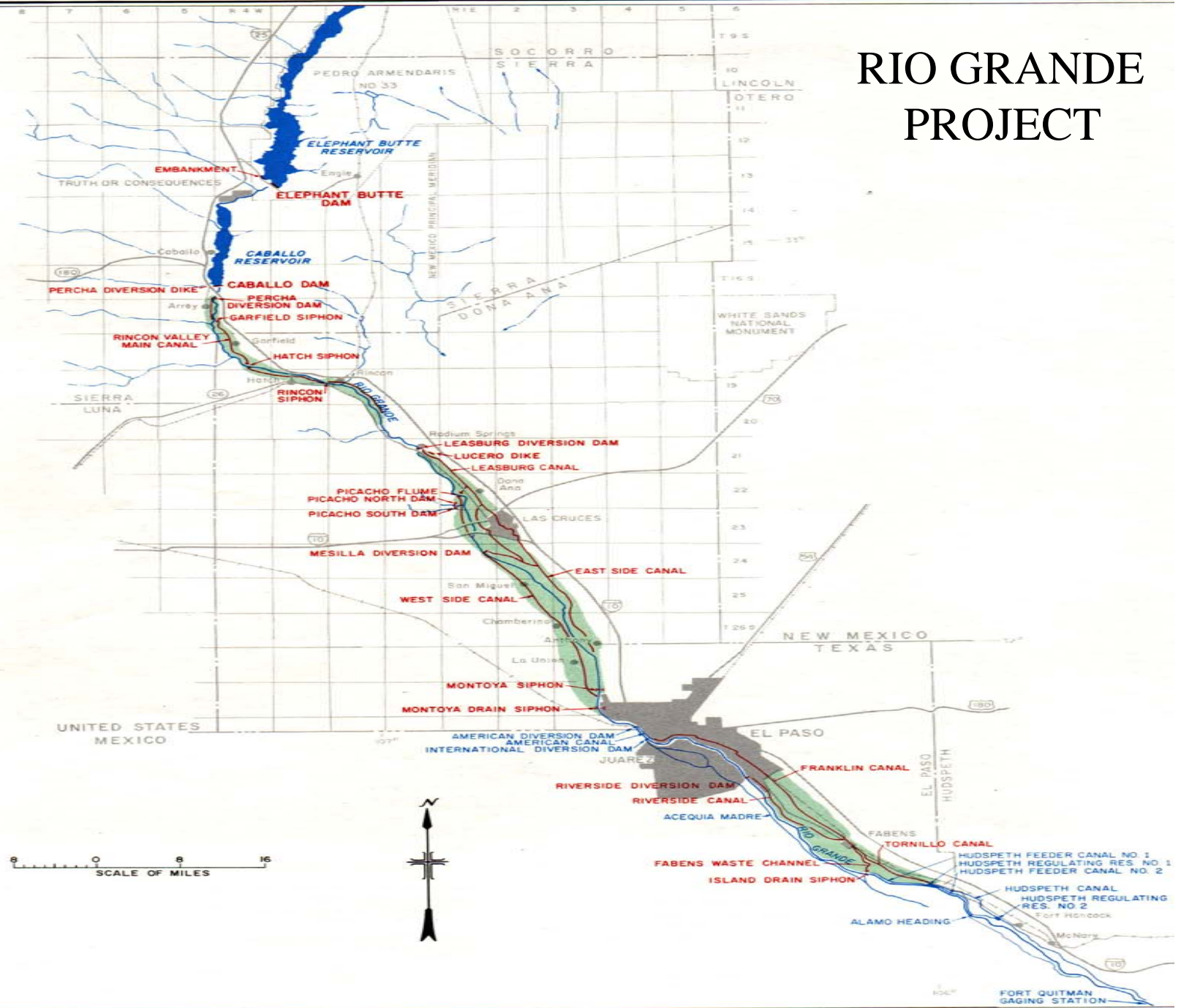
## RIO GRANDE PROJECT

### 2008 RESERVOIR OPERATIONS AND PROJECT WATER SUPPLY



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# RIO GRANDE PROJECT



**WORKSHEET OF STATUS OF RIO GRANDE COMPACT CREDIT WATERS & SAN JUAN-  
CHAMA WATER IN ELEPHANT BUTTE RESERVOIR AND ACCRUED DEPARTURES**

W/Trees  
5/9/2008

**2008**

**ELEPHANT BUTTE RESERVOIR**

**CABALLO  
RESERVOIR**

**Rio Grande Compact  
Credit Waters**

**San Juan-  
Chama  
Pool  
(AF)**

**Rio Grande  
Compact Accrued  
Departure**

**Colorado  
(AF)**

**New Mexico  
(AF)**

**Texas  
(AF)**

Beginning of 2008 (derived from 2007  
RGC Accounting)

7,200

184,500

4,048

778,400

Inflow to San Juan-Chama Pool from  
transfer upstream (Mar. 1 - Mar. 24, 2008)

21,911

Estimated Evaporation from Jan. 1 to  
April 30, 2008 (derived from actual data)

535

Relinquishment of Credit Water by NM to  
TX on February 01, 2008

125,000

Relinquishment of Credit Water by CO to  
TX on February 29, 2008

1,200

Caballo Reservoir Releases  
(actual data thru April 30, 2008)

189,918

Bonita Lateral Releases  
(actual data thru April 07, 2008)

228

2008 Departure from Normal Release  
at Caballo Reservoir (thru Dec. 31, 2008)

0

Preliminary Status of RGC Credit Waters,  
SJ-C Water, & Accr. Deps. to Apr. 30, 2008

6,000

59,500

25,424

778,400

**Accrued Departure  
CREDITS**



## **RIO GRANDE COMPACT USABLE WATER IN PROJECT STORAGE**

**Wednesday, May 14, 2007**

Elephant Butte Reservoir	566,443 acre-feet	
Caballo Reservoir	49,625 acre-feet	616,068 AF
Compact Credit Waters	-65,500 acre-feet	
San Juan-Chama Water	-25,424 acre-feet	-90,924 AF
<b>USABLE PROJECT WATER</b>		<b>525,144 AF</b>

# RECLAMATION

BASED ON 2008 MARCH THROUGH JULY WATER SUPPLY OUTLOOK REPORT **May 1**

2008 MAR-JUL @ SAN MARCIAL (NRCS forecast)  
2008 MAR-JUL @ SAN MARCIAL (regulated forecast)

121%  
132%

695 KAF  
755 KAF

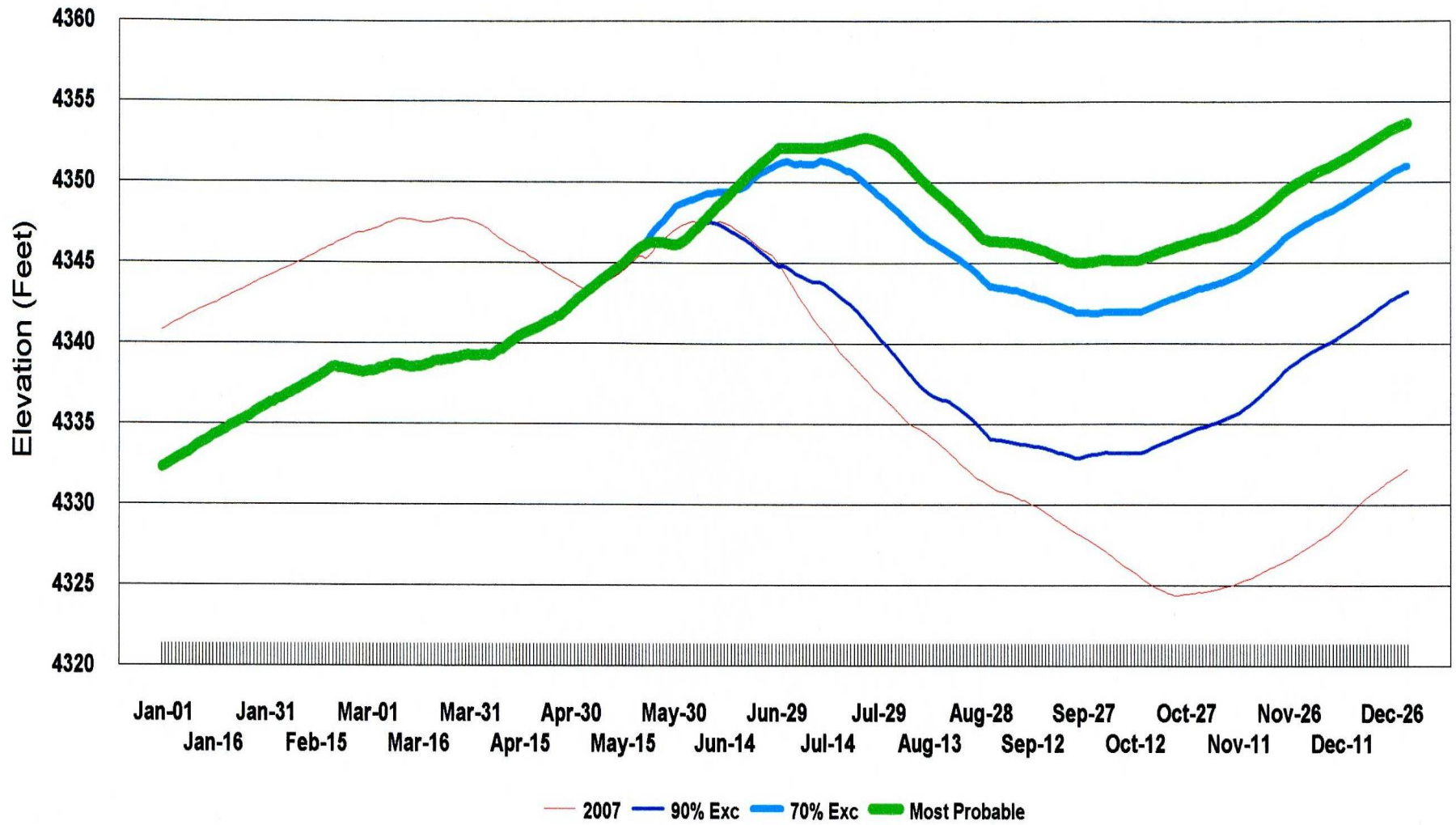
\*\* Based on 30-yr (1971-2000) avg of 573,000 Acre-feet.

\* Actual historical data

COCHITI		NET SAN		ELEPHANT BUTTE=====				CABALLO IRRIG.		EXCESS		TOTAL CABALLO			
YEAR	RELEASE	LOSSES	MARCIAL	LOSSES	EVAP	CONTENT	RELEASE	EVAP	LOSSES	DEMAND	RELEASE	RELEASE	CONTENT		
2007														2007	
* JAN	38	-14	52	5	2	558	1	1	-3	0	0	0	45	JAN	
* FEB	40	-3	44	-1	4	598	0	1	-2	0	0	0	47	FEB	
* MAR	86	28	57	-14	7	609	54	1	4	76	0	76	19	MAR	
* APR	73	8	66	-15	10	556	124	2	6	74	0	74	61	APR	
* MAY	161	29	133	4	10	601	73	3	6	56	0	56	68	MAY	
* JUN	84	38	46	-11	14	571	73	4	-7	104	0	104	40	JUN	
* JUL	50	34	16	-13	11	461	128	3	1	105	0	105	59	JUL	
* AUG	44	29	15	-15	9	397	86	3	4	105	0	105	33	AUG	
* SEP	40	23	17	-12	7	358	61	1	0	77	0	77	16	SEP	
* OCT	32	21	11	-5	6	326	42	1	-2	39	0	39	21	OCT	
* NOV	32	5	27	-4	4	352	0	1	-2	0	0	0	22	NOV	
* DEC	56	23	33	-27	3	409	0	1	-3	0	0	0	24	DEC	
TOTAL	736	221	515	-109	87	642		22	2	637	0	637		TOTAL	
AVG	454	Total Mar-Jul		55%		483								38	AVG
		137	317												
YEAR	COCHITI	NET	SAN	ELEPHANT BUTTE=====				CABALLO IRRIG.		EXCESS		TOTAL CABALLO			
	RELEASE	LOSSES	MARCIAL	LOSSES	EVAP	CONTENT	RELEASE	EVAP	LOSSES	DEMAND	RELEASE	RELEASE	CONTENT		
2008														2008	
* JAN	45	-3	48	-1	3	455	1	1	-2	0	0	0	26	JAN	
* FEB	57	3	54	-4	5	482	25	1	3	7	0	7	41	FEB	
* MAR	140	55	84	-32	8	495	95	2	7	89	0	89	38	MAR	
* APR	215	78	137	-33	12	536	117	3	6	95	0	95	51	APR	
* MAY	281	127	154	-26	16	589	111	3	7	102	0	102	50	MAY	
* JUN	243	16	227	-6	18	676	128	4	-6	130	0	130	50	JUN	
* JUL	142	-10	152	-7	18	680	137	3	1	133	0	133	50	JUL	
* AUG	119	71	48	-9	18	591	128	3	3	132	0	132	40	AUG	
* SEP	70	23	47	-6	12	573	59	1	0	78	0	78	20	SEP	
* OCT	57	17	40	-4	10	592	15	1	-2	24	0	24	11	OCT	
* NOV	52	-7	59	1	5	645	0	1	-2	0	0	0	12	NOV	
* DEC	53	-7	60	2	3	700	0	1	-3	0	0	0	14	DEC	
TOTAL	1473	362	1111	-124	128	817		24	13	790	0	790		TOTAL	
AVG	Total Mar-Jul		132%		585									34	AVG
	1020	265	755												
YEAR	COCHITI	NET	SAN	ELEPHANT BUTTE=====				CABALLO IRRIG.		EXCESS		TOTAL CABALLO			
	RELEASE	LOSSES	MARCIAL	LOSSES	EVAP	CONTENT	RELEASE	EVAP	LOSSES	DEMAND	RELEASE	RELEASE	CONTENT		
2009														2009	
JAN	40	-7	47	0	4	742	0	1	-3	0	0	0	16	JAN	
FEB	44	-4	48	-0	8	760	23	1	-2	0	0	0	40	FEB	
MAR	75	15	60	-1	10	683	128	2	2	119	0	119	45	MAR	
APR	157	37	120	-2	16	706	83	2	2	79	0	79	45	APR	
MAY	250	55	195	-4	18	787	100	3	2	90	0	90	50	MAY	
JUN	197	67	130	-6	24	762	137	4	2	131	0	131	50	JUN	
JUL	119	51	68	-7	18	683	136	4	-1	133	0	133	50	JUL	
AUG	78	34	44	-9	14	609	113	2	-3	124	0	124	40	AUG	
SEP	55	23	32	-6	12	578	57	1	-2	78	0	78	20	SEP	
OCT	47	17	30	-2	10	575	25	1	-2	35	0	35	11	OCT	
NOV	52	-7	59	2	5	627	0	1	-2	0	0	0	12	NOV	
DEC	53	-7	60	2	3	681	0	0	-3	0	0	0	14	DEC	
TOTAL	1167	274	894	-33	142	803		22	-9	790	0	790		TOTAL	
AVG	Total Mar-Jul		100%		683									33	AVG
	798	225	573												

# ELEPHANT BUTTE RESERVOIR

## 2008 PROJECTED ELEVATION\*



\*Actual data thru May 11; other data is a projection..

\*Based on Rio Grande Project runs dated May 12, 2008



**ELEPHANT BUTTE RESERVOIR  
2008 PROJECTED LAKE ELEVATIONS  
SUMMARY TABLE**

WTTreers  
5/13/2008

[SUBJECT TO REVISION]

May 26 = Memorial Day  
July 04 = Independence Day  
September 01 = Labor Day

	Elevation (feet) *	Storage (acre-feet)	Lake Surface Area (acres)	Difference In Elevation From 2007	
<b>END OF SEASON ELEVATION:</b> October 24, 2007	4324.40	323,488	10,270	-6.24	(Diff. from 2006)
<b>TODAY - MAY 13, 2008:</b>	4344.44	564,230	13,818	0.28	
<b>2008 RIO GRANDE PROJECT RESERVOIRS PLAN SAN MARCIAL MOST PROBABLE - 121%/132% RUNOFF **</b>					
May 26, 2008	4346.31	590,439	14,143	0.11	(-0.27 from 5/28/07)
July 04, 2008	4352.14	676,052	15,422	8.50	
July 26, 2008 (High Pt.)	4352.79	686,136	15,616	15.07	
September 01, 2008	4346.39	591,519	14,157	15.39	(15.55 from 9/3/07)
October 14, 2008 (Low Pt.)	4345.23	575,134	13,955	19.71	(20.83 from 10/24/07)
December 31, 2008	4353.68	700,179	15,881	21.46	
<b>2008 RIO GRANDE PROJECT RESERVOIRS PLAN SAN MARCIAL 70% EXCEEDANCE - 103%/117% RUNOFF **</b>					
May 26, 2008	4347.36	605,280	14,325	1.16	(0.78 from 5/28/07)
July 04, 2008	4351.20	661,672	15,142	7.56	
July 13, 2008 (High Pt.)	4351.34	663,796	15,184	10.50	
September 01, 2008	4343.52	551,523	13,658	12.52	(12.68 from 9/3/07)
October 15, 2008 (Low Pt.)	4342.04	531,503	13,401	16.68	(17.64 from 10/24/07)
December 31, 2008	4351.03	659,203	15,091	18.81	
<b>2008 RIO GRANDE PROJECT RESERVOIRS PLAN SAN MARCIAL 90% EXCEEDANCE - 79%/96% RUNOFF **</b>					
May 26, 2008	4346.31	590,439	14,143	0.11	(-0.27 from 5/28/07)
June 10, 2008 (High Pt.)	4347.53	607,766	14,355	-0.05	
July 04, 2008	4344.51	565,198	13,830	0.87	
September 01, 2008	4334.07	430,524	11,933	3.07	(3.23 from 9/3/07)
October 15, 2008 (Low Pt.)	4333.27	421,072	11,783	7.91	(8.87 from 10/24/07)
December 31, 2008	4343.20	547,215	13,602	10.98	

\* Rio Grande Project datum; to obtain USGS mean sea level, add 43.30 feet.

\*\* Based on NRCS/NWS May 1st runoff forecasts, and adjusted for upstream reservoir regulation and middle valley gains.

# RECLAMATION

*Managing Water in the West*

## RIO GRANDE PROJECT

### 2008 PROJECT ALLOCATION



U. S Dept. of the Interior  
Bureau of Reclamation

## **2008 Rio Grande Project Allocation**

### **Initial Allocation - End of December, 2007**

(letter issued Jan. 18, 2008)

Mexico	10,711 AF
Elephant Butte Irrigation District	59,928 AF
El Paso County Water Improvement District # 1	154,901 AF
	<hr/>
[24.20% of a full supply]	225,540 AF *

### **Updated Allocation - End of January, 2008**

(letter issued Feb. 21, 2008)

Mexico	26,935 AF
Elephant Butte Irrigation District	151,859 AF
El Paso County Water Improvement District # 1	232,339 AF
	<hr/>
[44.12% of a full supply]	411,133 AF *

### **Updated Allocation - End of February, 2008**

(letter issued Mar. 20, 2008)

Mexico	31,519 AF
Elephant Butte Irrigation District	169,877 AF
El Paso County Water Improvement District # 1	258,634 AF
	<hr/>
[49.37% of a full supply]	460,030 AF *

### **Updated Allocation - End of March, 2008**

(letter issued Apr. 17, 2008)

Mexico	38,773 AF
Elephant Butte Irrigation District	198,384 AF
El Paso County Water Improvement District # 1	300,239 AF
	<hr/>
[57.67% of a full supply]	537,396 AF *

### **Updated Allocation - End of April, 2008**

(letter issued May 19, 2008)

Mexico	52,680 AF
Elephant Butte Irrigation District	253,045 AF
El Paso County Water Improvement District # 1	380,012 AF
	<hr/>
[73.59% of a full supply]	685,737 AF *

\* Project water supply available for diversion at the authorized canal headings.

# CABALLO RESERVOIR

## 2008 PROJECTED OUTFLOW (cfs)\*



\* Actual data through May 12; other data is a projection.

\*Based on Rio Grande Project runs dated May 12.



# RIO GRANDE PROJECT

## 2007 WATER OPERATIONS SUMMARY

ELEPHANT BUTTE RESERVOIR INFLOW	515,050	A-F
ELEPHANT BUTTE RESERVOIR OUTFLOW	642,060	A-F
CABALLO RESERVOIR INFLOW	642,060	A-F
CABALLO RESERVOIR OUTFLOW	636,860	A-F
EBID WATER CHARGES	302,665	A-F
EPCWID#1 WATER CHARGES *	278,252	A-F
CITY OF EL PASO DIVERSIONS	58,792	A-F
HCCRD DIVERSIONS **	82,262	A-F
FT. QUITMAN FLOW ***	63,263	A-F

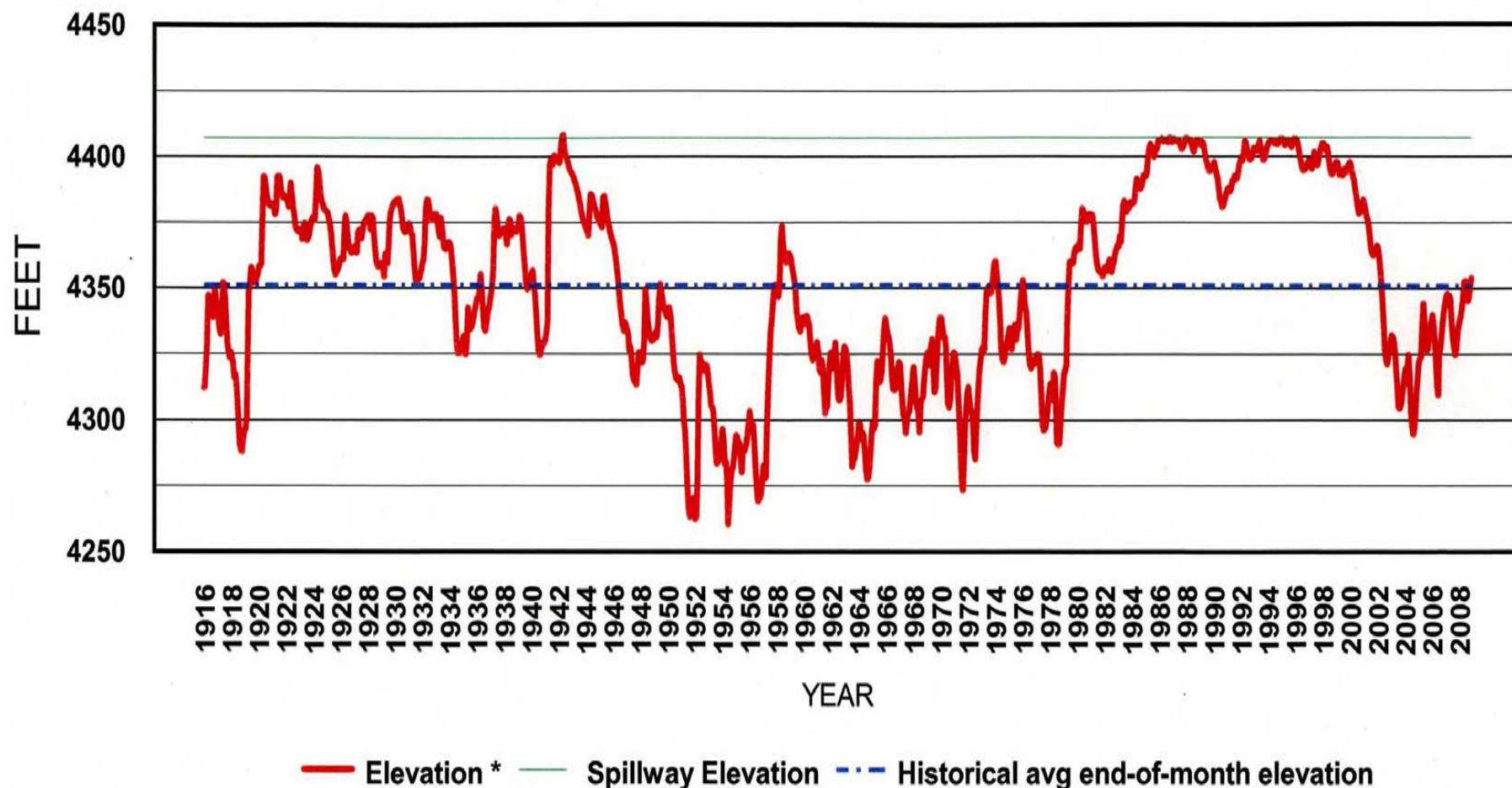
\* Includes City of El Paso diversions.

\*\* System waste and return flows.

\*\*\* Includes discharge from Acequia Madre in Mexico.

# ELEPHANT BUTTE RESERVOIR

HISTORICAL END-OF-MONTH ELEVATION\*\*



\*\*Data thru Apr. 2008 is actual data; other 2008 data is a projection based on Reclamation's most probable plan.

\* BOR project datum. To obtain mean sea level datum, add 43.3 feet

# RECLAMATION

*Managing Water in the West*

## RIO GRANDE PROJECT

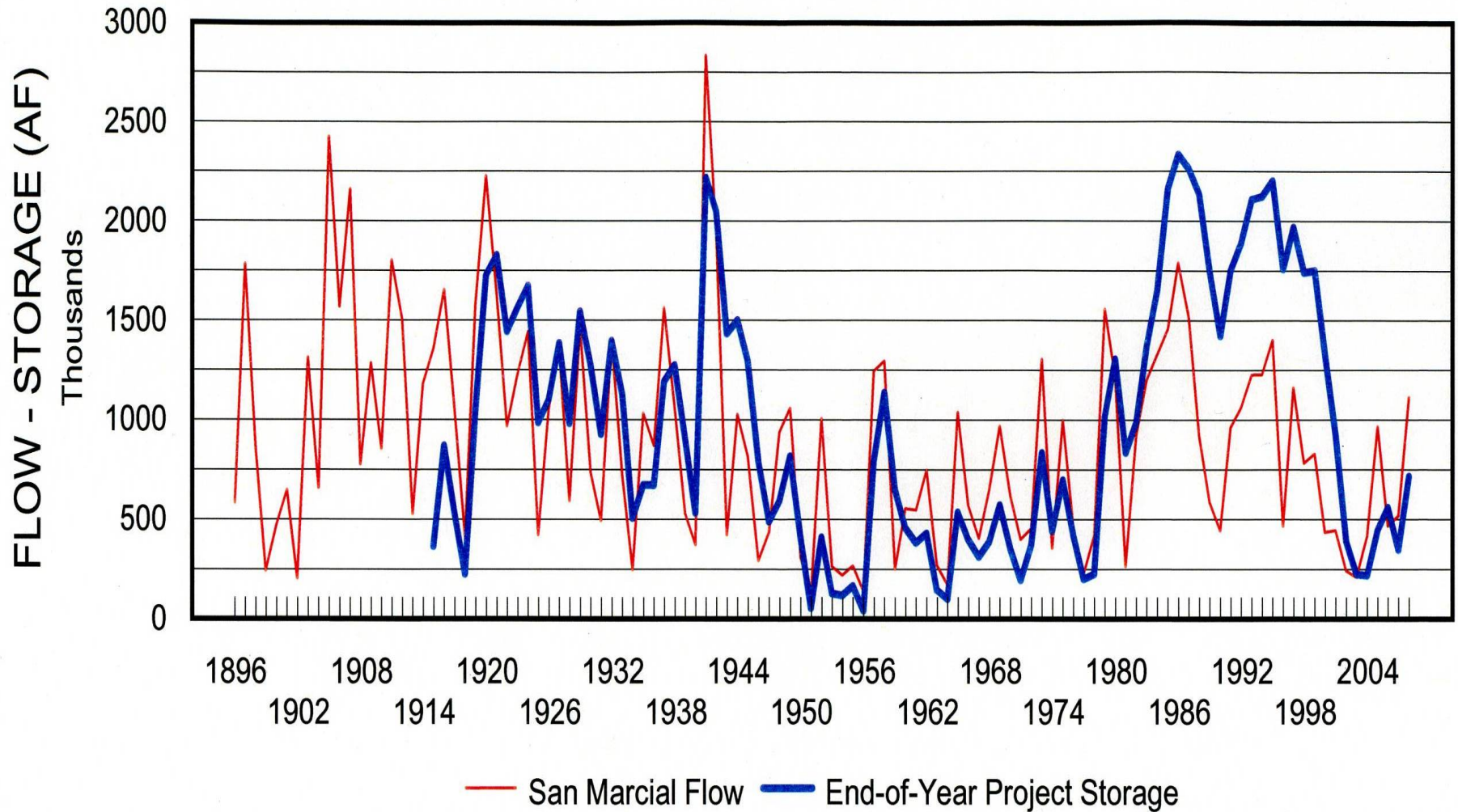
## SUPPORTING INFORMATION



U. S Dept. of the Interior  
Bureau of Reclamation

# SAN MARCIAL FLOW - RIO GRANDE PROJECT STORAGE

1896 Through 2008\*



\* End-of-year project storage and San Marcial flow for 2008 is a projection based on Rio Grande Project most probable plan.



**STATUS OF RIO GRANDE COMPACT CREDIT WATERS  
IN ELEPHANT BUTTE RESERVOIR SINCE LAST SPILL  
FROM RIO GRANDE PROJECT STORAGE \***

<u>YEAR</u>	<u>COLORADO (acre-feet)</u>	<u>NEW MEXICO (acre-feet)</u>	
<b>1995</b>	0	0	<b>SPILL YEAR</b>
<b>1996</b>	2,400	68,800	
<b>1997</b>	2,900	105,500	
<b>1998</b>	11,500	153,100	
<b>1999</b>	17,700	170,700	
<b>2000</b>	27,000	269,100	
<b>2001</b>	10,100	155,700	
<b>2002</b>	42,800	265,000	
<b>2003</b>	1,200	54,000	
<b>2004</b>	4,400	35,600	
<b>2005</b>	4,600	37,100	
<b>2006</b>	15,500	180,100	
<b>2007</b>	7,200	184,500	

\* derived from Rio Grande Compact Commission yearly reports.

## **ELEPHANT BUTTE RESERVOIR**

Top of Conservation Storage Pool:  
(Rio Grande Project Authorization)

TOTAL STORAGE  
2,023,358 AF  
(ELEV 4407.00 FT)

FLOOD RESERVATION  
POOL

Top of Conservation Storage Pool:  
Winter (October 1 - March 31)

1,998,358 AF  
(ELEV 4406.30 FT)

25,000 AF (WINTER)

Top of Conservation Storage Pool:  
Summer (April 1 - September 30)

1,973,358 AF  
(ELEV 4405.60 FT)

50,000 AF (SUMMER)

Top of City of Albuquerque SJ-C Pool:  
1983 Contract for irrig. and domestic

50,000 AF  
(ELEV 4295.11 FT)

Top of Federal Recreation Pool:  
1974 Public Law 93-493, 88 Stat. 1486

50,000 AF  
(ELEV 4282.68 FT)

## **CABALLO RESERVOIR**

Top of Flood Control Pool:

326,672 AF  
(ELEV 4182.00 FT)

EXCLUSIVE  
FLOOD CONTROL

100,000 AF

Top of Conservation Storage Pool:

226,672 AF  
(ELEV 4172.44 FT)

Top of Minimum Fishery Pool:  
Biological Opinion (1991)

25,000 AF  
(ELEV 4138.24 FT)

Court Order No. CIV-90-95 HB/WWD:

October 1 - January 31 (each year), storage level  
will not exceed 50,000 AF (elev 4146.11 ft)

Operation Plan of Caballo Reservoir during 2008:

February 1 - September 30 (2008), storage level will be maintained  
such that the storage level shall not exceed 57,000 AF (elev 4147.79 ft)  
nor drop below 10,000 AF (elev 4130.81 ft) from Feb. 1 to Sep. 30

**RIO GRANDE PROJECT HISTORICAL  
ALLOCATION OF PROJECT WATER SUPPLY**

WTrunks  
03/05/2008

YEAR	EO FEB. TOTAL RIO GRANDE PROJECT STORAGE (acre-feet)	SAN MARCIAL SPRING RUNOFF (Mar-Jul) (acre-feet)	INITIAL ALLOTMENT TO PROJECT LANDS (acre-foot/acre)	FINAL ALLOTMENT TO PROJECT LANDS (acre-foot/acre)	INITIAL ALLOTMENT TO PROJECT CANAL HEADINGS (acre-feet)	FINAL ALLOTMENT TO PROJECT CANAL HEADINGS (acre-feet)	EO OCT. TOTAL RIO GRANDE PROJECT STORAGE (acre-feet)	MEXICO DIVERSION AT ACEQUIA MADRE HEADING (acre-feet)	INITIAL RELEASE DATE FROM CABALLO DAM	CABALLO DAM TOTAL YEARLY RELEASE (acre-feet)
1951	452,730	17,877	1.00	1.75			32,900	33,059	03/06	469,450
1952	103,920	832,160	0.21	2.50			370,950	49,890	03/20	543,975
1953	468,600	143,170	1.00	1.90			99,990	37,760	03/10	528,628
1954	184,460	76,720	0.42	0.50			91,480	10,147	03/20	244,165
1955	169,850	68,920	0.21	0.42			129,700	8,185	03/20	219,157
1956	212,180	59,885	0.33	0.39			31,040	7,864	03/18	246,140
1957	77,130	600,680	0.10	1.17			645,760	23,290	03/20	397,103
1958	857,510	988,030	1.75	4.00			1,007,170	60,050	03/01	737,125
1959	1,185,120	72,590	3.00	3.50			575,670	60,110	03/02	687,414
1960	713,550	410,900	2.25	3.25			405,820	60,320	03/02	705,162
1961	492,870	269,550	1.25	2.45			223,080	48,610	03/10	561,697
1962	486,570	448,250	1.75	3.25			269,580	60,057	03/05	651,941
1963	513,170	116,765	1.85	2.00			109,440	39,693	03/05	517,172
1964	194,790	67,930	0.25	0.33			58,670	6,653	03/15	206,085
1965	172,340	598,290	0.17	1.85			340,940	36,658	03/20	505,598
1966	627,430	328,380	1.75	2.50			312,910	49,618	03/05	610,341
1967	454,710	74,090	1.25	1.50			223,340	29,829	02/27	456,517
1968	386,860	238,560	1.00	2.00			277,530	39,677	02/27	505,691
1969	466,970	358,710	1.25	3.00			387,410	59,884	02/27	667,669
1970	614,620	257,960	2.00	3.00			223,870	60,065	02/23	661,125
1971	435,640	112,837	1.50	1.75			75,540	34,847	02/26	498,375
1972	283,380	77,630	0.60	0.80			258,910	16,077	03/01	260,911
1973	457,960	914,090	1.00	3.00			707,340	60,000	03/09	617,461
1974	915,650	95,430	3.00	3.00			376,650	60,050	03/02	640,843
1975	507,700	617,850	1.00	3.00			534,490	60,052	01/24	580,617
1976	762,230	204,260	2.50	3.00			353,910	60,172	01/16	679,676
1977	482,460	43,374	1.00	1.25			140,460	24,824	03/03	416,496
1978	268,220	248,610	0.25	0.75			112,160	14,903	03/10	356,167
1979	328,690	1,148,880	0.67	3.00		790,000	855,640	60,055	03/08	568,687
1980	1,080,400	861,894	3.00	3.00		790,000	1,178,400	60,033	01/17	658,686
1981	1,339,860	54,256	3.00	3.00	750,650	750,650	774,380	60,262	02/04	608,166
1982	878,660	548,573	3.00	3.00	790,000	790,000	866,140	59,257	01/27	635,642
1983	1,070,130	920,545	3.00	3.00	790,000	790,000	1,289,750	60,621	02/03	648,386
1984	1,424,200	831,291	3.00	3.00	902,000	902,000	1,515,500	58,588	02/09	653,150
1985	1,747,700	1,133,599			902,000	902,000	2,121,600	60,276	02/20	677,398
1986	2,322,200	812,686			902,000	902,000	2,290,800	66,163	04/01	1,396,165
1987	2,336,900	1,003,319			902,000	902,000	2,168,400	65,866	02/03	1,376,099
1988	2,383,900	419,098			902,000	902,000	2,060,100	61,935	01/20	838,008
1989	2,151,900	378,144			890,900	890,900	1,705,300	58,854	02/13	736,866
1990	1,801,000	159,213			931,841	931,841	1,319,400	58,353	02/12	680,107
1991	1,509,660	656,638			931,841	931,841	1,580,080	59,242	02/19	625,956
1992	1,830,380	745,950			931,841	931,841	1,802,720	58,080	01/09	734,982
1993	1,980,230	742,508			931,841	931,841	1,978,640	63,763	01/12	823,263
1994	2,155,690	852,845			931,841	931,841	2,003,860	60,167	01/11	893,384
1995	2,203,730	991,736			931,841	931,841	2,083,050	63,618	01/17	1,096,146
1996	2,263,420	131,980			931,841	931,841	1,689,550	60,063	01/12	774,335
1997	1,814,910	600,666			931,841	931,841	1,814,980	59,442	01/21	798,621
1998	2,036,000	447,172			931,841	931,841	1,636,860	60,628	01/16	808,661
1999	1,803,410	384,225			931,841	931,841	1,658,810	58,308	01/27	735,467
2000	1,804,980	159,000			931,841	931,841	1,243,900	60,611	01/20	751,373
2001	1,359,370	241,000			931,841	931,841	856,910	61,037	02/02	786,549
2002	974,610	61,095			738,139	931,841	323,190	60,324	02/19	801,147
2003	456,140	62,029			74,860	317,495	170,490	26,948	03/17	364,528
2004	288,480	240,387			43,667	353,944	128,010	27,613	03/12	398,612
2005	331,000	738,095			138,549	931,841	362,060	58,091	03/09	676,031
2006	517,170	92,521			351,560	472,426	436,950	27,112	03/08	434,228
2007	644,990	316,979			369,466	760,391	346,170	51,245	03/07	636,730

bold number means full irrigation supply for Rio Grande Project water users.

\* derived from International Boundary & Water Commission (IBWC) - U. S. Section, Yearly Flow Data Publications.